DCR-PC10/PC10E

RMT-808/809

SERVICE MANUAL

Self Diagnostics
Supported model

Ver 1.2   1999.02

Handycam Vision™

Cassette Memory

D200 MECHANISM

Photo : DCR-PC10E
: RMT-808

US Model
Canadian Model
DCR-PC10

AEP Model
UK Model
Australian Model
Chinese Model
DCR-PC10E

E Model
Hong Kong Model
Tourist Model
DCR-PC10/PC10E

NTSC model: DCR-PC10
PAL model: DCR-PC10E

For MECHANISM ADJUSTMENTS, refer to the “DV MECHANICAL ADJUSTMENT MANUAL Ⅲ D200 MECHANISM ” (9-973-981-11), “DV MECHANICAL ADJUSTMENT MANUAL Ⅰ D MECHANISM ” (9-973-815-11).

SPECIFICATIONS

Video camera recorder

System

Video recording system
Two rotary heads, Helical scanning system

Audio recording system
Rotary heads, PCM system
Quantization: 12bits (Fs 32kHz, stereo 1, stereo 2)

Video signal
DCR-PC10:
NTSC color, EIA standards
DCR-PC10E:
PAL colour, CCIR standards

Usable cassette
Mini DV cassette with logo printed

Recording/playback time
SP mode: 1 hour (DVM60)
LP mode: 1.5 hours (DVM60)

Fastforward/rewind time
Approx. 2 min. 30 s (DVM60) (using with battery pack)
Approx. 1 min. 45 s (DVM60) (using with AC power adaptor)

Viewfinder
Electric viewfinder (colour)

Image device
CCD (Charge Coupled Device 1/3”)

Lens
Combined power zoom lens (Carl Zeiss), 150x (Digital), (Except AEP, UK), 48x (Digital)(AEP, UK), 12x (Optical)

Focal distance
f = 4.4 to 52.8 mm
(42 to 504 mm when converted into a 35 mm still camera)
F 1.8 – 2.8

Colour temperature
Auto
HOLD, INDOOR ☼ 3,200K,
OUTDOOR ☀ 5,800K

Minimum illumination
3 lux at F 1.8

Illumination range
3 to 100,000 lux

Recommended illumination
More than 100 lux

LCD screen

Picture
2.5 inches measured diagonally
50.015 x 37.428 mm

On-screen display
TN LCD/TFT active matrix method

Total dot number
180,000 (800 x 225)

Input and output connectors

S video output
4-pin mini DIN
Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative
DCR-PC10:
Chrominance signal: 0.286 Vp-p, 75 ohms, unbalanced
DCRPC10E:
Chrominance signal: 0.3 Vp-p, 75 ohms, unbalanced

Audio/Video/Headphones output
Special minijack
V: 1 Vp-p, 75 ohms, unbalanced, sync negative
A: 327 mV (at output impedance more than 47 kilohms)
Output impedance with less than 2.2 kilohms/Stereo minijack (ø 3.5 mm)

DCR-PC10, DCR-PC10E; Except AEP, UK:
DV input/output
DCR-PC10E; AEP, UK:
DV output
4-pin connector

Connection
26-pin connector

LASER LINK

Video/Audio
IR special transmission system

Audio carrier
Lch: 4.3 MHz
Rch: 4.8 MHz

General

Power requirements
7.2 V (battery insertion input)
8.4 V (26-pin connector)

Average power consumption
4.5 W during camera recording using viewfinder
5.8 W during camera recording using LCD screen

Operating temperature
0°C to 40°C (32°F to 104°F)

Storage temperature
–20°C to 60°C (–4°F to 140°F)

Dimensions
Approx. 61 x 129 x 118 mm (w/h/d)

Mass
Approx. 530 g excluding the battery pack and the cassette
Approx. 640 g including the battery pack NP-F100 and cassette DVM60

Microphone
Electret condenser microphone, Stereo type

Speaker
Piezo-electric-speaker

— Continued on next page —

Mini DV Digital Video Cassette

DIGITAL VIDEO CAMERA RECORDER

MICROFILM

SONY®

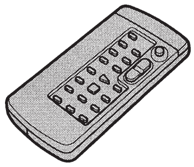
AC power adaptor

Power requirements
100 to 240 V AC, 50/60 Hz
Power consumption
25 W
Output voltage
DC OUT: 8.4 V, 1.8 A in operating mode
Battery charge terminal: 8.4 V, 1.4 A in charge mode
Application
Sony battery pack NP-F100, NP-F200, NP-F300 lithium ion type
Operating temperature
0°C to 40°C (32°F to 104°F)
Storage temperature
–20°C to 60°C (–4°F to 140°F)
Dimensions
Approx. 57 x 44 x 107 mm (w/h/d)
Mass
Approx. 190 g

Design and specifications are subject to change without notice.

Checking supplied accessories

Check that the following accessories are supplied with your camcorder.

1


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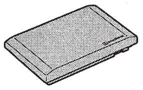

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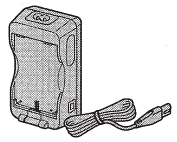

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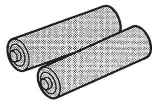

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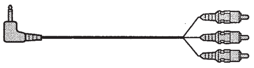

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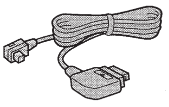

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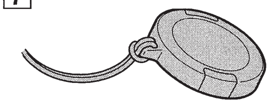

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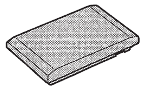

1 **Wireless Remote Commander** (1)
RMT-808: DCR-PC10/PC10E:
EXCEPT AEP, UK
RMT-809: DCR-PC10E: AEP, UK

2 **NP-F100 battery pack** (1)

3 **AC-V100 AC power adaptor** (1)
The shape of the plug varies from region to region.

4 **R6 (size AA) battery for Remote Commander** (2)

5 **A/V connecting cable** (1)

6 **DK-626 connecting cord** (1)

7 **Lens cap** (1)
This lens cap is already set on your camcorder.

8 **Battery terminal cover** (1)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270°C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

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* There is the color reproduction standard frame at the back of the book.

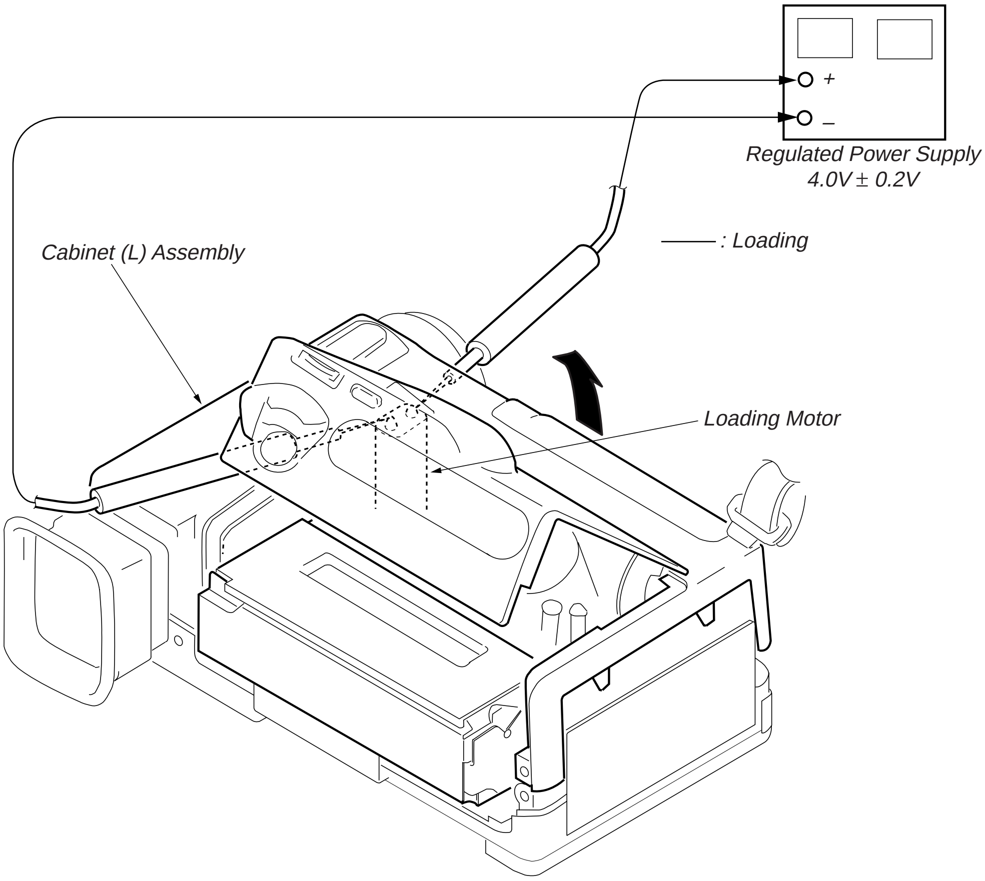
SERVICE NOTE

1. CABINET (L) ASSEMBLY REMOVAL WHEN THE CASSETTE HOLDER STOPS HALFWAY DURING LOADING OR UNLOADING

(Do not remove cabinet (L) assembly in the state that the cassette holder stops halfway.)

Note 1: Unloading operation in the state that the tape is in the set causes tape damage. So do not perform the unloading operation.
Note 2: Do not perform the following operation in the state that the unregulated power supply is connected.
(Disconnect battery or AC adapter)

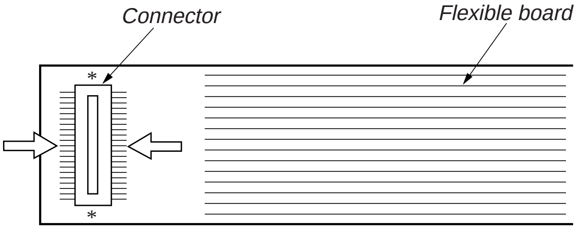
1) Remove screws securing cabinet (L) assembly referring the “SECTION 2. DISASSEMBLY”.
2) Put cabinet (L) assembly up and apply power supply to loading motor with tester leads or the like from gaps.



2. HANDLING THE VC, MR BOARDS

Never heat the VC and MR boards with hot air. (Malfunctions may result.)
Also remove after dehumidifying.

3. SPECIAL PRECAUTIONS ON DISCONNECTION OF CONNECTOR ATTACHED TO THE FLEXIBLE BOARD



- Apply force in the arrow (⇨) direction and disconnect.
- Do not apply force in the * direction as this will cause the solder (of the pin) to float easily.
- When touching the pins with the solder iron, do not touch other parts. (Deformation may occur.)
- Ensure no folding lines are formed on the flexible board. (This will cause the internal copper film to cut easily.)

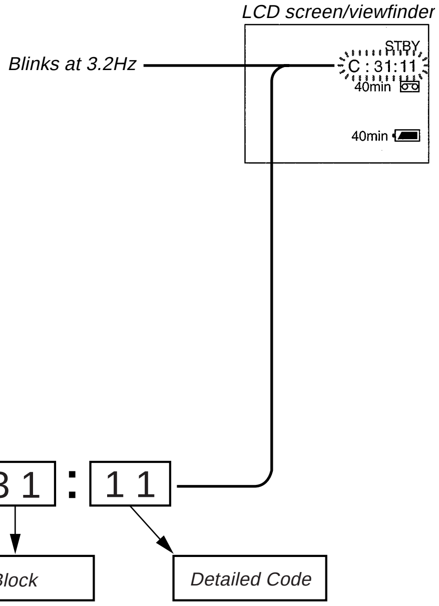
SELF-DIAGNOSIS FUNCTION

1. Self-diagnosis Function

When problems occur while the unit is operating, the self-diagnosis function starts working, and displays on the LCD window what to do. This function consists of two display; self-diagnosis display and service mode display.
Details of the self-diagnosis functions are provided in the Instruction manual.

2. Self-diagnosis display

When problems occur while the unit is operating, the counter of the LCD window shows a 4-digit display consisting of an alphabet and numbers, which blinks at 3.2 Hz. This 5-character display indicates the “repaired by:”, “block” in which the problem occurred, and “detailed code” of the problem.



C : Corrected by customer
H : Corrected by dealer
E : Corrected by service engineer

Indicates the appropriate step to be taken.
E.g.
31 ....Reload the tape.
32 ....Turn on power again.

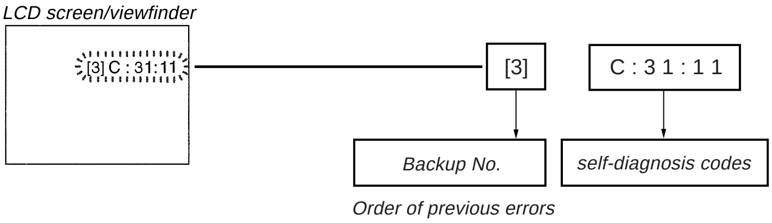
Refer to page 8
Self-diagnosis Code Table.

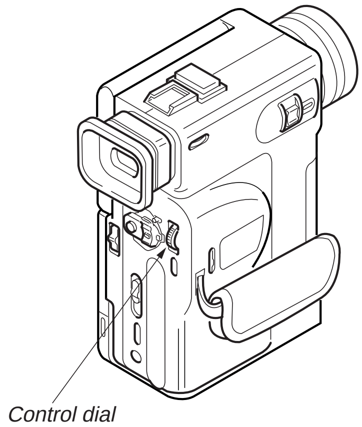
3. Service Mode Display

The service mode display shows up to six self-diagnosis codes shown in the past.

3-1. Display Method

While pressing the “STOP” key, set the power switch from OFF to “VTR or PLAYER”, and continue pressing the “STOP” key for 5 seconds continuously. The service mode will be displayed, and the counter will show the backup No. and the 5-character self-diagnosis codes.





3-2. Switching of Backup No.

By rotating the control dial, past self-diagnosis codes will be shown in order. The backup No. in the [] indicates the order in which the problem occurred. (If the number of problems which occurred is less than 6, only the number of problems which occurred will be shown.)

[1] : Occurred first time
[2] : Occurred second time
[3] : Occurred third time
[4] : Occurred fourth time
[5] : Occurred fifth time
[6] : Occurred the last time

3-3. End of Display

Turning OFF the power supply will end the service mode display.

Note: The self-diagnosis display data will be backed up by the coin-type lithium battery. When this coin-type lithium battery (FK-4850 flexible board) is disconnected, the self-diagnosis data will be lost by initialization.

4. Self-diagnosis Code Table

Self-diagnosis Code			Symptom/State	Correction
Repaired by:	Block Function	Detailed Code		
C	2 1	0 0	Condensation.	Remove the cassette, and insert it again after one hour.
C	2 2	0 0	Video head is dirty.	Clean with the optional cleaning cassette.
C	2 3	0 0	Non-standard battery is used.	Use the info LITHIUM battery.
C	3 1	1 0	LOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
C	3 1	1 1	UNLOAD direction. Loading does not complete within specified time	Load the tape again, and perform operations from the beginning.
C	3 1	2 0	T reel side tape slacking when unloading.	Load the tape again, and perform operations from the beginning.
C	3 1	2 1	S reel side tape slacking when unloading.	Load the tape again, and perform operations from the beginning.
C	3 1	2 2	T reel fault	Load the tape again, and perform operations from the beginning.
C	3 1	2 3	S reel fault	Load the tape again, and perform operations from the beginning.
C	3 1	2 4	T reel fault	Load the tape again, and perform operations from the beginning.
C	3 1	3 0	FG fault when starting capstan	Load the tape again, and perform operations from the beginning.
C	3 1	4 0	FG fault when starting drum	Load the tape again, and perform operations from the beginning.
C	3 1	4 2	FG fault during normal drum operations	Load the tape again, and perform operations from the beginning.
C	3 2	1 0	LOAD direction loading motor time-out	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	1 1	UNLOAD direction loading motor time-out	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 0	T reel side tape slacking when unloading.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 1	S reel side tape slacking when unloading.	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 2	T reel fault	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 3	S reel fault	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	2 4	T reel fault	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	3 0	FG fault during normal capstan operations	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 0	FG fault when starting drum	Remove the battery or power cable, connect, and perform operations from the beginning.
C	3 2	4 2	FG fault during normal drum operations	Remove the battery or power cable, connect, and perform operations from the beginning.
E	6 1	0 0	Difficult to adjust focus (Cannot initialize focus.)	Inspect the lens block focus reset sensor (Pin ㉑ of CN100 of CD-175 board) when focusing is performed when the focus button of the remote control (e.g. RM-95) is pressed in the focus fixing mode, and the focus motor drive circuit (IC204, IC404 of VC-199 board) when the focusing is not performed.
E	6 1	1 0	Zoom operations fault (Cannot initialize zoom lens.)	Inspect the lens block zoom reset sensor (Pin ⑪ of CN100 of CD-175 board) when zooming is performed when the zoom lens is operated and the zoom motor drive circuit (IC204, 404 of VC-199 board) when zooming is not performed.
E	6 2	0 0	Steadyshot function does not work well. (With pitch angular velocity sensor output stopped.)	Inspect pitch angular velocity sensor (SE501 of FP-615 flexible board) peripheral circuits.
E	6 2	0 1	Steadyshot function does not work well. (With yaw angular velocity sensor output stopped.)	Inspect yaw angular velocity sensor (SE500 of CD-175 board) peripheral circuits.

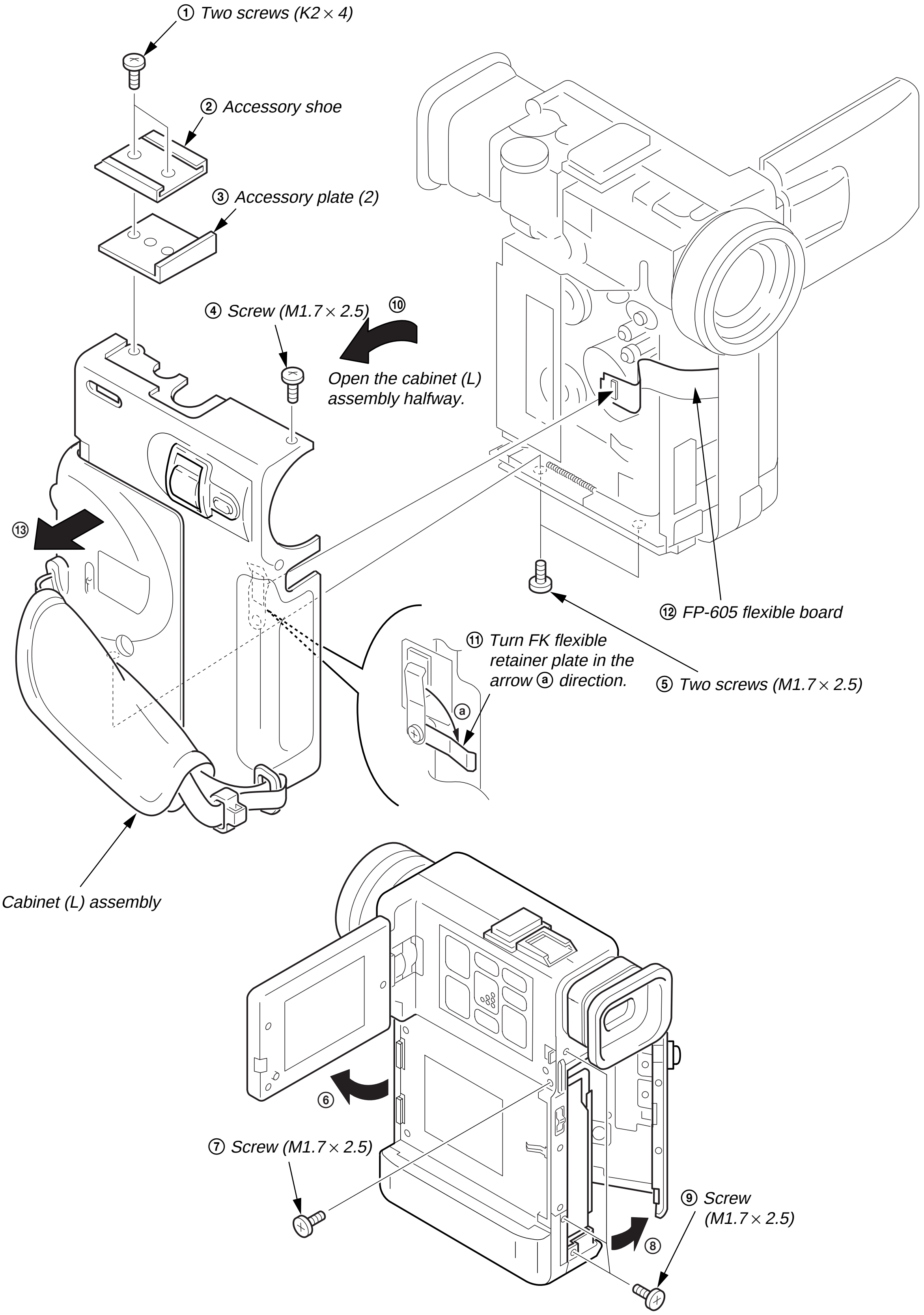
SECTION 1
GENERAL

This section is extracted from instruction manual. (DCR-PC10E model)

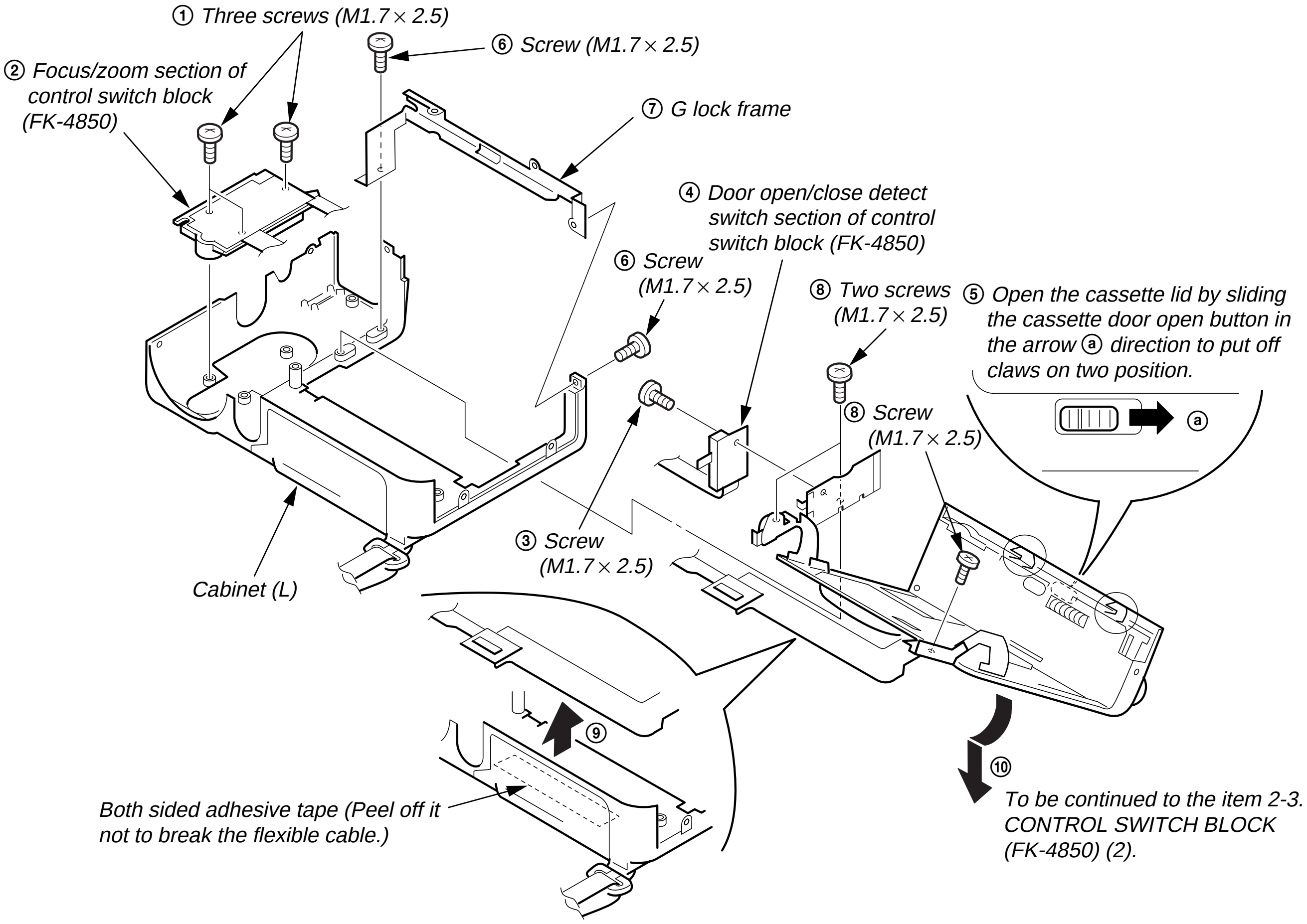
SECTION 2
DISASSEMBLY

NOTE : Follow the disassembly procedure in the numerical order given.

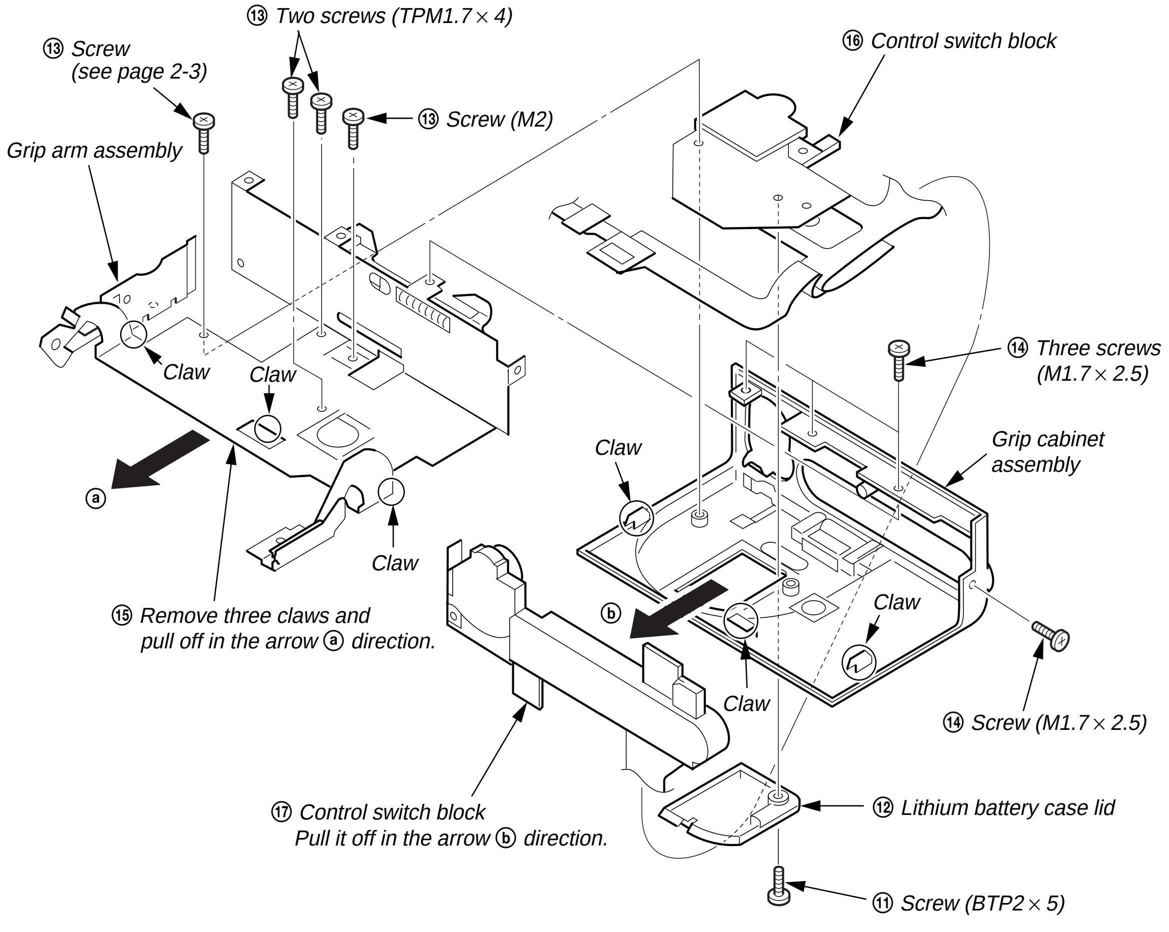
2-1. CASSETTE (L) ASSEMBLY


① Two screws (K2 × 4)
② Accessory shoe
③ Accessory plate (2)
④ Screw (M1.7 × 2.5)
⑩
Open the cabinet (L) assembly halfway.
⑬
⑫ FP-605 flexible board
⑪ Turn FK flexible retainer plate in the arrow ⓐ direction.
ⓐ
⑤ Two screws (M1.7 × 2.5)
Cabinet (L) assembly
⑥
⑦ Screw (M1.7 × 2.5)
⑨ Screw (M1.7 × 2.5)
⑧

2-2. CONTROL SWITCH BLOCK (FK-4850) (1)


① Three screws (M1.7 × 2.5)
⑥ Screw (M1.7 × 2.5)
② Focus/zoom section of control switch block (FK-4850)
⑦ G lock frame
④ Door open/close detect switch section of control switch block (FK-4850)
⑥ Screw (M1.7 × 2.5)
⑧ Two screws (M1.7 × 2.5)
⑤ Open the cassette lid by sliding the cassette door open button in the arrow ⓐ direction to put off claws on two position.
ⓐ
⑧ Screw (M1.7 × 2.5)
③ Screw (M1.7 × 2.5)
Cabinet (L)
⑨
⑩
To be continued to the item 2-3. CONTROL SWITCH BLOCK (FK-4850) (2).
Both sided adhesive tape (Peel off it not to break the flexible cable.)

2-3. CONTROL SWITCH BLOCK (FK-4850) (2)

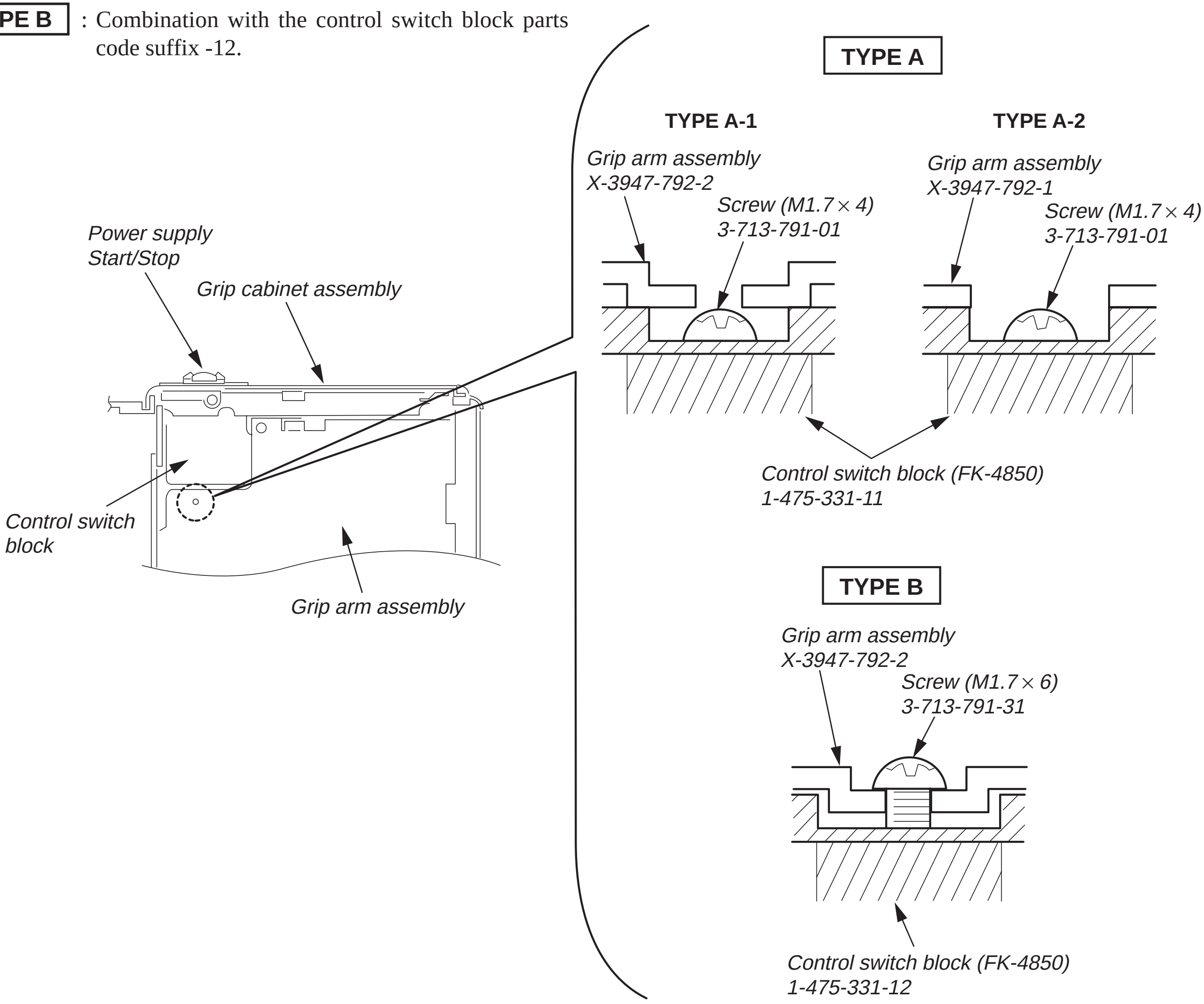

⑬ Two screws (TPM1.7 × 4)
⑬ Screw (see page 2-3)
⑯ Control switch block
⑬ Screw (M2)
Grip arm assembly
⑭ Three screws (M1.7 × 2.5)
Claw
Claw
Grip cabinet assembly
Claw
ⓐ
Claw
Claw
⑮ Remove three claws and pull off in the arrow ⓐ direction.
ⓑ
Claw
⑭ Screw (M1.7 × 2.5)
⑰ Control switch block Pull it off in the arrow ⓑ direction.
⑫ Lithium battery case lid
⑪ Screw (BTP2 × 5)

2-4. NOTES ON REPLACING CONTROL SWITCH BLOCK (FK-4850)

There are two types of the control switch block (FK-4850), parts code suffix -11 and -12 (The supplied part for service is the suffix -12 part only).
When replacing it -11 to -12, also it is necessary to replace the grip arm assembly suffix -1 to -2 and screws suffix -11 to -31.

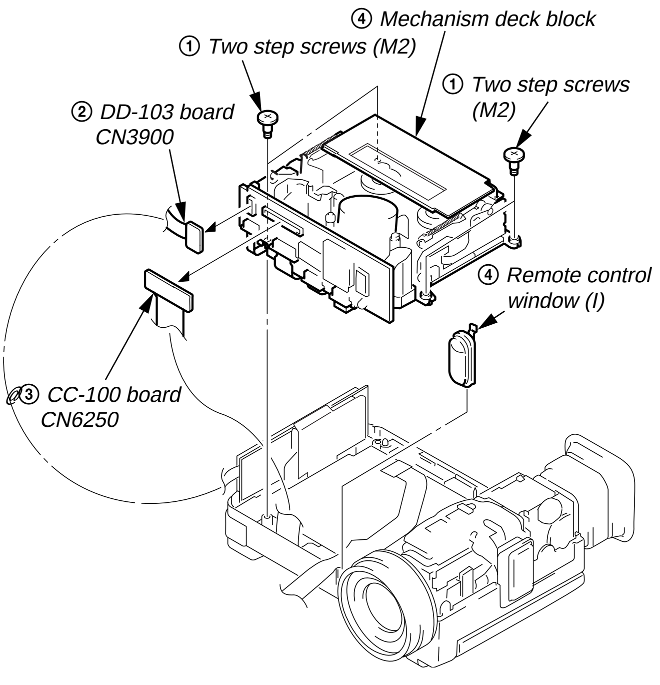
Discrimination between the suffix -11 and -12 of the control switch block (FK-4850).

TYPE A : Combination with the control switch block parts code suffix -11.
TYPE B : Combination with the control switch block parts code suffix -12.


TYPE A
TYPE A-1
TYPE A-2
Grip arm assembly
X-3947-792-2
Screw (M1.7 × 4)
3-713-791-01
Grip arm assembly
X-3947-792-1
Screw (M1.7 × 4)
3-713-791-01
Power supply
Start/Stop
Grip cabinet assembly
Control switch block (FK-4850)
1-475-331-11
Control switch
block
Grip arm assembly
TYPE B
Grip arm assembly
X-3947-792-2
Screw (M1.7 × 6)
3-713-791-31
Control switch block (FK-4850)
1-475-331-12

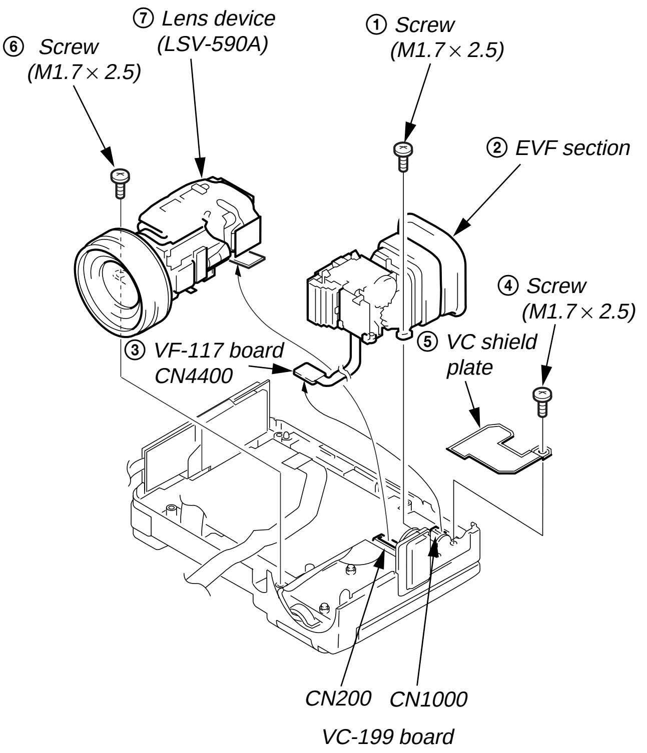
Note: *A screw used on TYPE B is longer than it used on TYPE A to secure the grip arm assembly and the control switch block (FK-4850) together. Be sure to use a long screw (M1.7 × 6).*

2-5. MECHANISM DECK BLOCK

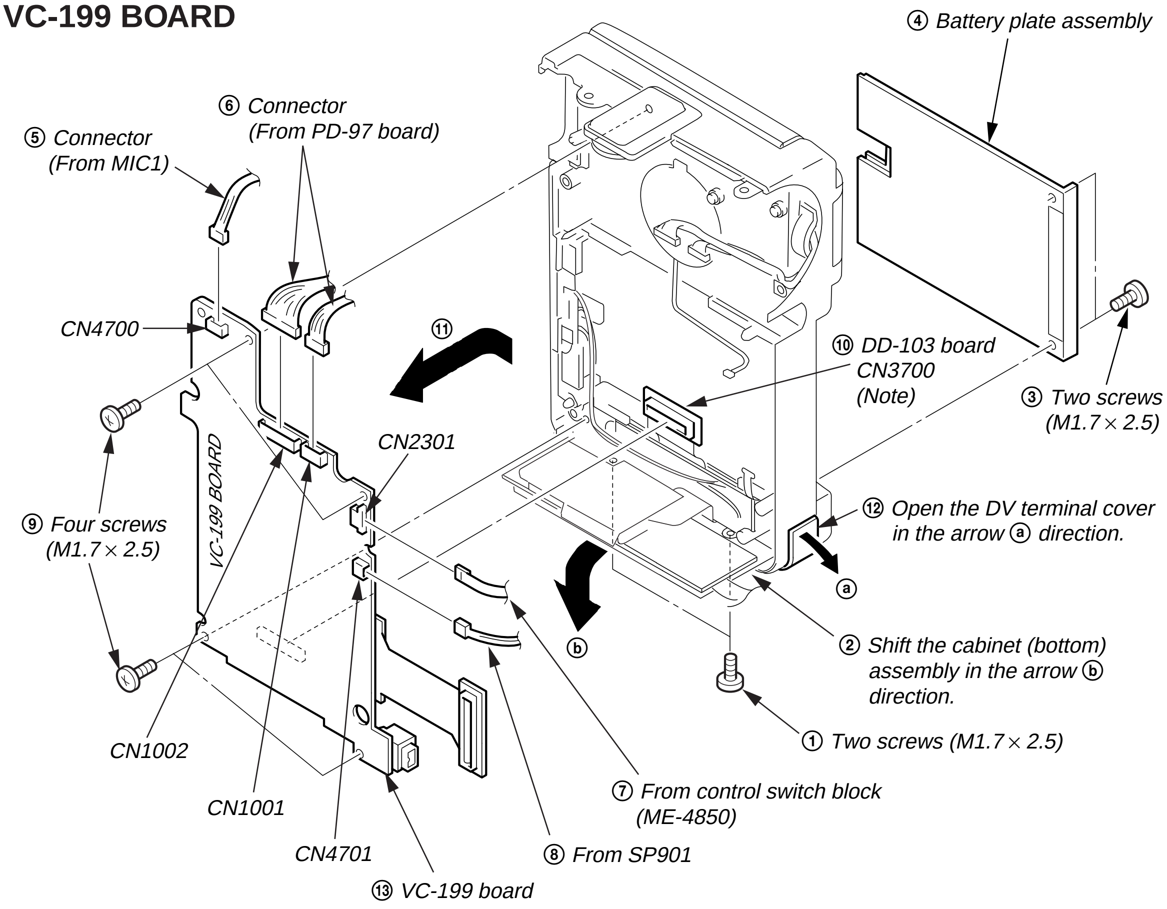

④ Mechanism deck block
① Two step screws (M2)
① Two step screws (M2)
② DD-103 board CN3900
④ Remote control window (I)
③ CC-100 board CN6250

Note on mechanism deck attaching:
First attach the remote control window (I). or check the remote control window (I) is already attached.

2-6. LENS DEVICE (LSV-590A), EVF BLOCK ASSEMBLY

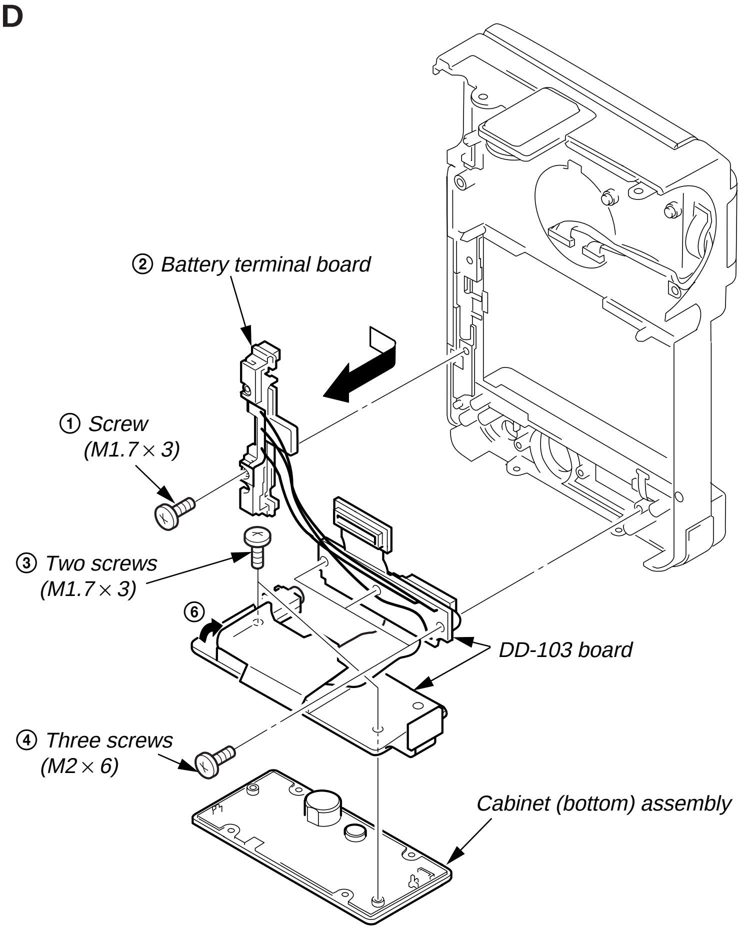

⑦ Lens device (LSV-590A)
⑥ Screw (M1.7 × 2.5)
① Screw (M1.7 × 2.5)
② EVF section
④ Screw (M1.7 × 2.5)
⑤ VC shield plate
③ VF-117 board CN4400
CN200
CN1000
VC-199 board

2-7. VC-199 BOARD

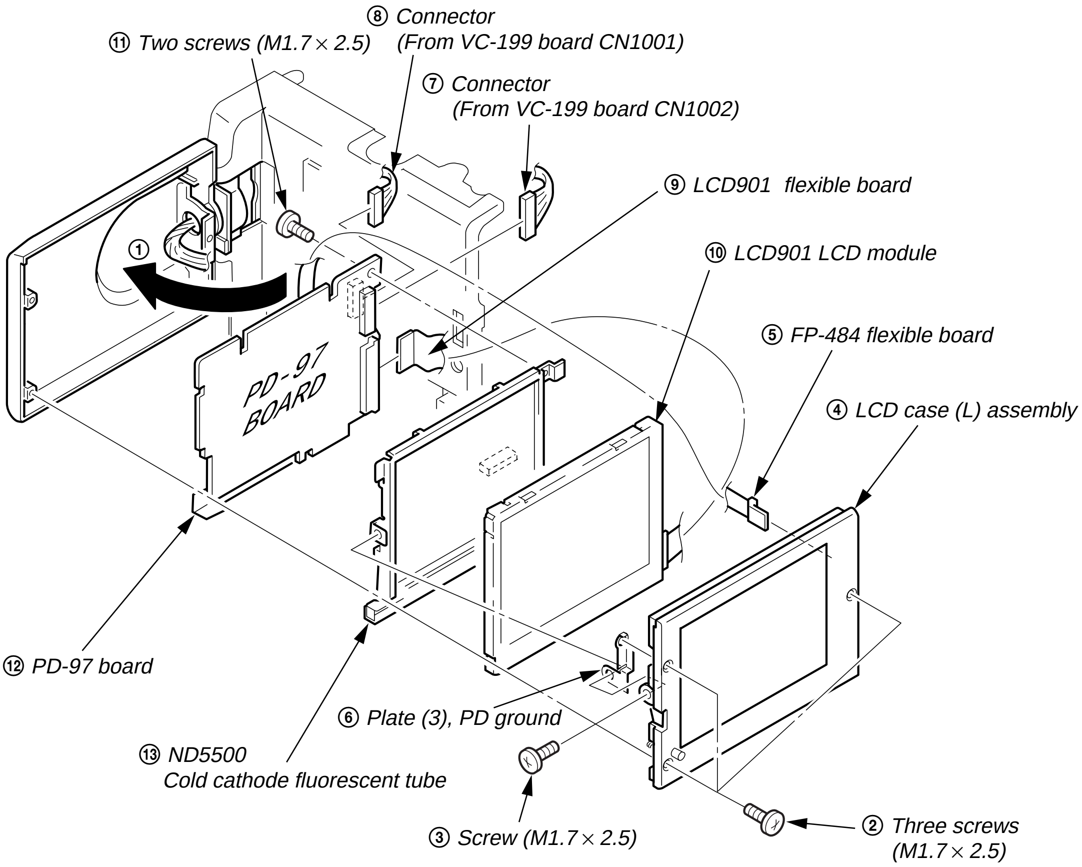

④ Battery plate assembly
⑥ Connector (From PD-97 board)
⑤ Connector (From MIC1)
CN4700
⑪
⑩ DD-103 board CN3700 (Note)
③ Two screws (M1.7 × 2.5)
CN2301
⑨ Four screws (M1.7 × 2.5)
VC-199 BOARD
⑫ Open the DV terminal cover in the arrow ⓐ direction.
ⓐ
ⓑ
② Shift the cabinet (bottom) assembly in the arrow ⓑ direction.
① Two screws (M1.7 × 2.5)
CN1002
⑦ From control switch block (ME-4850)
CN1001
CN4701
⑧ From SP901
⑬ VC-199 board

Note: Be sure to connect first CN3700 before attaching the battery plate assembly.

2-8. DD-103 BOARD


② Battery terminal board
① Screw
(M1.7 × 3)
③ Two screws
(M1.7 × 3)
⑥
DD-103 board
④ Three screws
(M2 × 6)
Cabinet (bottom) assembly

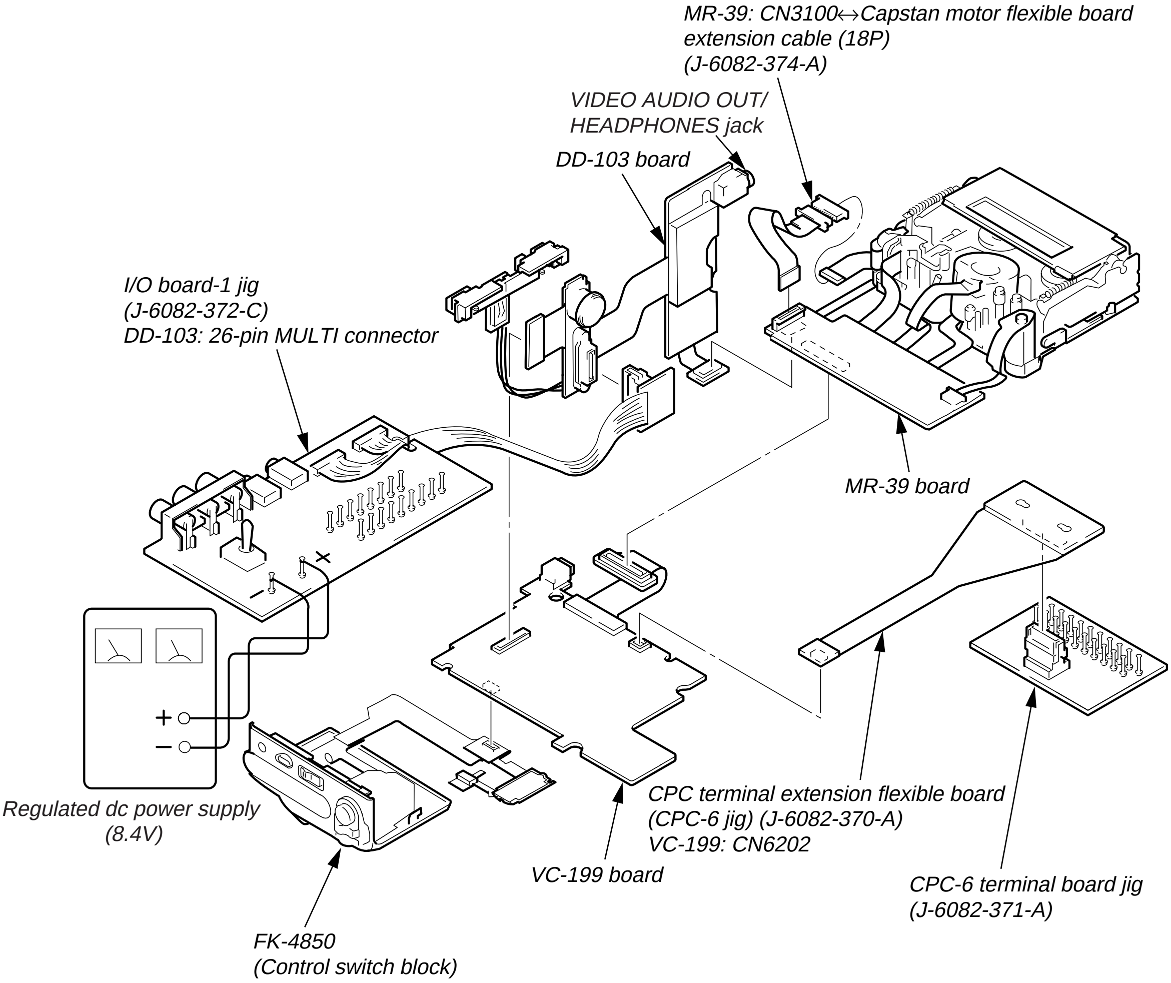
2-9. PD-97 BOARD, ND5500, LCD901


⑧ Connector
(From VC-199 board CN1001)
⑪ Two screws (M1.7 × 2.5)
⑦ Connector
(From VC-199 board CN1002)
⑨ LCD901 flexible board
①
⑩ LCD901 LCD module
⑤ FP-484 flexible board
PD-97 BOARD
④ LCD case (L) assembly
⑫ PD-97 board
⑥ Plate (3), PD ground
⑬ ND5500
Cold cathode fluorescent tube
③ Screw (M1.7 × 2.5)
② Three screws
(M1.7 × 2.5)

2-10. SERVICE POSITION-1 (MAINLY FOR VIDEO/AUDIO SYSTEM CHECKS OR ADJUSTMENTS)

① *Remove each board in the disassembly procedure.*
② *Connect the specified jigs as shown in the figure.*
(Some connectors can be connected reversely by its shape.
So, note that its connection on removal.)

Note: *Do not apply excessive force to the flexible portion of DD-103 board because of its shortness.*

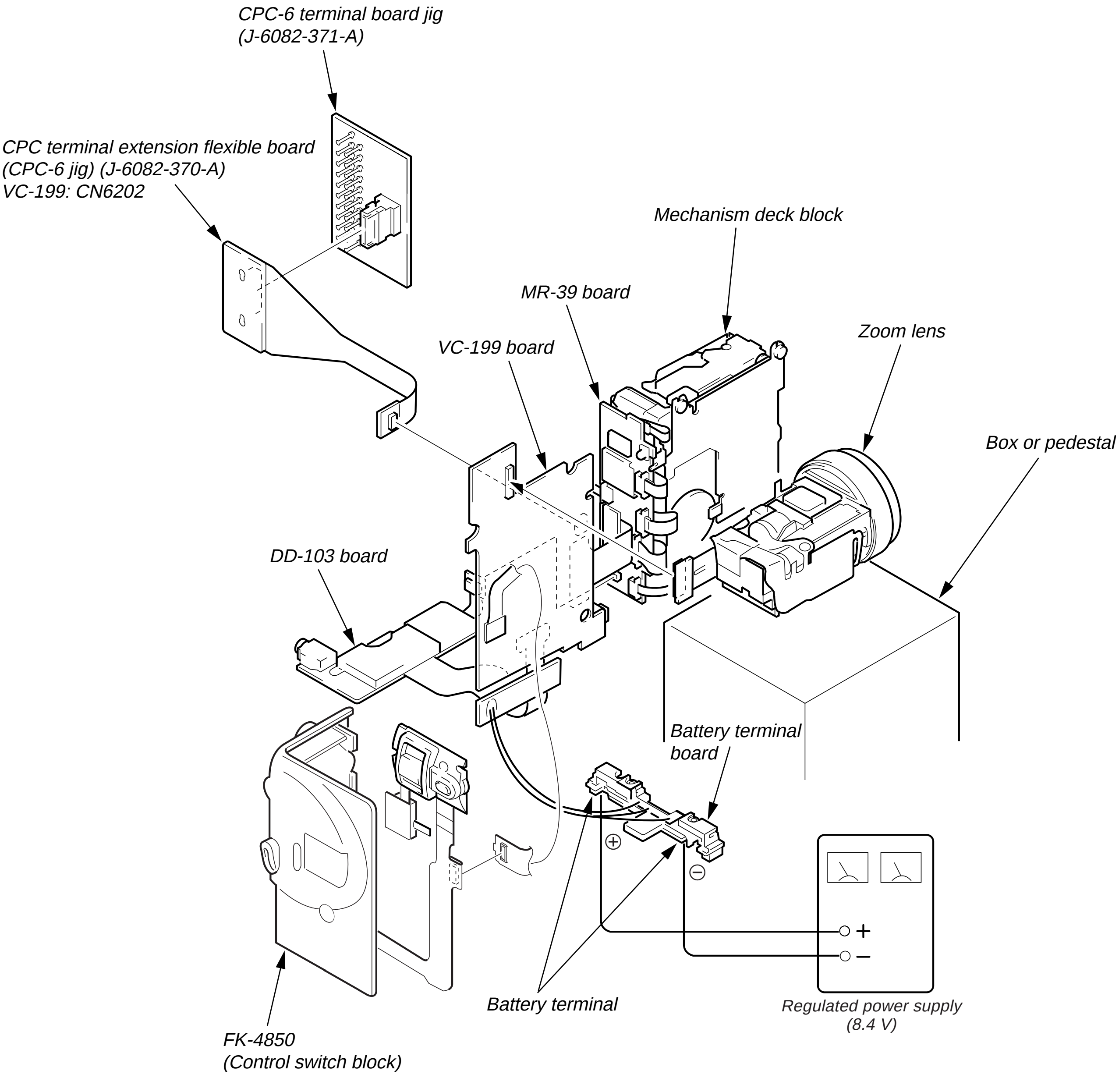


MR-39: CN3100↔Capstan motor flexible board extension cable (18P) (J-6082-374-A)
VIDEO AUDIO OUT/ HEADPHONES jack
DD-103 board
I/O board-1 jig (J-6082-372-C) DD-103: 26-pin MULTI connector
MR-39 board
+
−
Regulated dc power supply (8.4V)
CPC terminal extension flexible board (CPC-6 jig) (J-6082-370-A) VC-199: CN6202
VC-199 board
CPC-6 terminal board jig (J-6082-371-A)
FK-4850 (Control switch block)

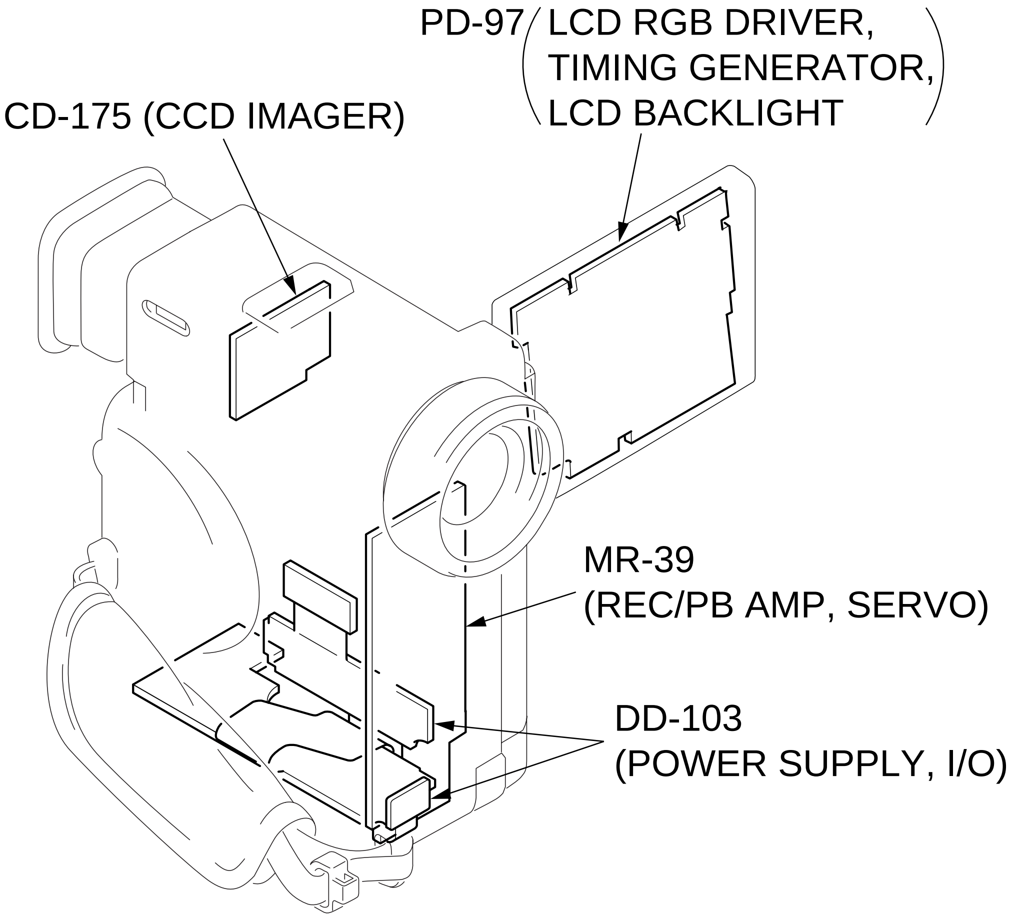
2-11. SERVICE POSITION-2 (MAINLY FOR CAMERA SYSTEM CHECKS OR ADJUSTMENTS)

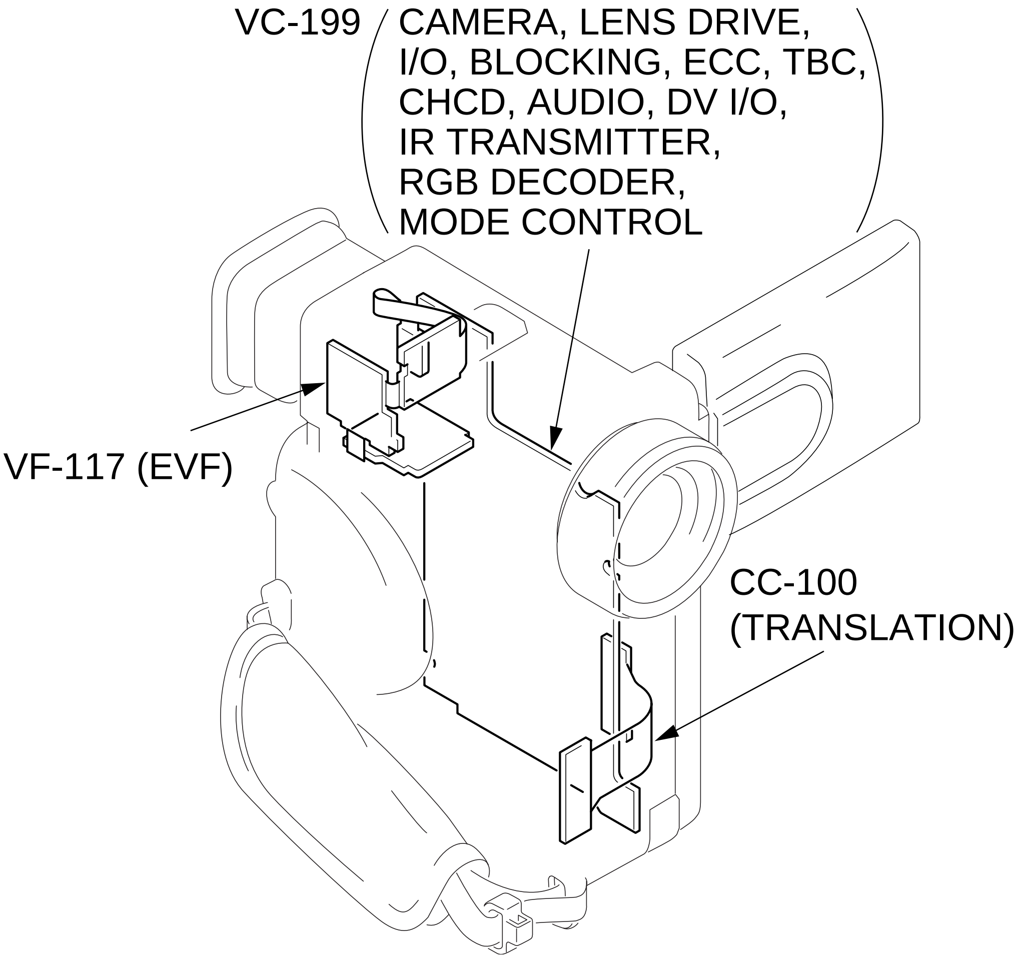
① *Remove each board in the disassembly procedure.*
② *Connect the specified jigs as shown in the figure.*
(Some connectors can be connected reversely by its shape.
So, note that its connection on removal.)

Note: *Do not apply excessive force to the flexible portion of DD-103 board because of its shortness.*


CPC-6 terminal board jig
(J-6082-371-A)
CPC terminal extension flexible board
(CPC-6 jig) (J-6082-370-A)
VC-199: CN6202
Mechanism deck block
MR-39 board
Zoom lens
VC-199 board
Box or pedestal
DD-103 board
Battery terminal board
⊕
⊖
+
–
Battery terminal
Regulated power supply
(8.4 V)
FK-4850
(Control switch block)

2-12. CIRCUIT BOARDS LOCATION


PD-97 (LCD RGB DRIVER, TIMING GENERATOR, LCD BACKLIGHT)
CD-175 (CCD IMAGER)
MR-39 (REC/PB AMP, SERVO)
DD-103 (POWER SUPPLY, I/O)


VC-199 (CAMERA, LENS DRIVE, I/O, BLOCKING, ECC, TBC, CHCD, AUDIO, DV I/O, IR TRANSMITTER, RGB DECODER, MODE CONTROL)
VF-117 (EVF)
CC-100 (TRANSLATION)

SECTION 3
BLOCK DIAGRAMS

3-1. OVERALL BLOCK DIAGRAM

VC-199 BOARD
(SEE PAGE 4-17, 21, 23, 26, 29, 32, 35, 38, 41, 46, 49, 53,)
CD-175 BOARD
(SEE PAGE 4-7)
IRIS METER
IC101 CCD IMAGER
IC100 V DRIVE
MANUAL FOCUS RING
ZOOM MOTOR
FOCUS MOTOR
ZOOM RESET SENSOR
FOCUS RESET SENSOR
SE500 YAW SENSOR
SE501 PITCH SENSOR
CN100
CN101
CN102
CN200
CCD OUT
RG, H1, H2
XV1-XV4 XSG1, XSG2
YS OUT
PS OUT
CA BLOCK
IC216 SIGNAL SEPARATION AGC A/D CONVERTER
IC200 TIMING GENERATOR
IC206 STEADY SHOT PROCESS
IC211 CAMERA SIGNAL PROCESS
IC214 DIGITAL ZOOM PROCESS
IC207 PLL
IC208 EVR
IC407 SENSOR AMP
IC405 SWITCH
IC406 SWITCH
IC202 EEPROM
IC402 FOCUS/ZOOM MOTOR DRIVE
IC403 IC401 IRIS DRIVE, HALL AMP
IC404 FOCUS/ZOOM PRE-DRIVE
IC205 CAMERA CONTROL
IRIS PWM
HALL AD
YS, PS
CAM SCK, SO, SI
MF A, MF B
FOCUS RST SENS, ZOOM RST SENS
MODE SCK, SI, SO
D0-D9
Y0-Y7
C0-C3
EXCK
VD, HD
CLK
BB BLOCK
IC1100 I/O INTERFACE, D/A CONVERTER
JY0-JY7
JC0-JC3
JSYY, JSYC, FLBYK, FLBCK, JODE, JFOE
IC1501 BRAM1
IC1502 BRAM2
IC1500 BLOCKING
D0-D15
TRCK1
SP SCK, SO, SI
FL1100 LPF
FL1101 BPF
IC1102 VIDEO OUT
VIDEO
S-Y
S-C
IR VIDEO
4.6V WIDE
IC1101 EVR
IC1104 POWER SAVE SW
POWER SAVE
IC1000 RGB DECODER
SPCK-PY
H, V
CG BLK CG R/G/B
IC1105 IC1106 GATE
IC1103 CHARACTER GENERATOR
IC2100 SIGNAL PROCESS CONTROL
JC BLOCK(1/2)
IC1700 V RAM
IC1701 ECC, TBC, CHCD
A1IA
A1OA
CK135
TRCK2
REC DATA, CLOCK
PB DATA, CLOCK
X8400 3.58MHz:NTSC MODEL 4.43MHz:PAL MODEL
IC8403 OSC
IC8401 IR TRANSMITTER
IR AUDIO L
IR AUDIO R
CN6201
ID BLOCK
IC3501 DV SIGNAL PROCESS
IC3502 DV INTERFACE
IC3500 DV CONTROL
INDT0-INDT15
CN3500 DV IN/OUT
OUT
PLAYER MODEL
VTR REC MODEL
MECHA SCK, SI, SO
IC1900 CLOCK, SYNC
CK135
ATF CLK, SG CK
TRCK1
TRCK2
TCK
JFOE
Q1104, 1105 RFU DC CURRENT LIMITER
HI BLOCK
IC2304 EEPROM
IC2305 LANC I/O
IC2302 MODE CONTROL
S2300 PANEL OPEN/CLOSE
IC2300 VOL BAT
IC2301 BATT/LI SWITCH, RESET
VBAT
UNREG
BACK UP VCC
RESET
CN2300
CN2301
EJECT SW
START/STOP FREEZE SW
POWER SW
VTR, CAMERA FUNCTION SW
ZOOM SW FOCUS SW
REC
DIAL/PUSH SW
RESET SW
FUNCTION SW BLOCK(FK4850)
MENU SW
LCD BRIGHT SW
VOLUME SW
ENDSEARCH SW
DISPLAY SW
TITLE SW
EDIT SEARCH SW
FUNCTION SWITCH BLOCK (ME4850)
AU BLOCK
MIC1
MIC L
MIC R
CN4700
IC4709 INT MIC AMP
IC4703 INT/EXT SELECT
IC4700 AU AGC
IC4718 LINE AMP
IC4717 LINE AMP
IC4701 AU A/D D/A CONVERTER
IC4710 AUDIO DSP
IC1901 AUDIO SIGNAL PROCESS
IC4704 LINE AMP
IC4705 LINE/HP SELECT
IC4706 HEADPHONE AMP
IC4707 AU A/D D/A CONVERTER
IC4711 AU PLL
IC4714 SPEAKER AMP
IC4715 IC4716
MULTI AUDIO L
MULTI AUDIO R
HP L/LINE L
LINE R
HP R
SIA
SOB
SOC
FCK
DTAI
DTAO
SP SCK2, 2 SO, 2SI
SP901 SPEAKER
CN4701
CN6200
CN3700
J3700 AUDIO VIDEO OUT
J3701 S VIDEO OUT
DD-103 BOARD(1/2)
(SEE PAGE 4-99)
CN3701 26PIN MULTI CONNECTOR
RF DC OUT
LANC SIG
CL-COM
CL-VG
ACV UNREG
BT3700 BATTERY
BATT SIG
IC3900 DC/DC CONVERTER
3.1V
UNREG
2.8V
2.1V
13.5V
4.6V
4.8V
4.9V
-6.5V
12V
CN3900
DD ON
LCD DD ON
IC1001
FP-484 (FLEXIBLE)
IC1 PANEL REVERSE SENSOR
PD-97 BOARD
(SEE PAGE 4-81, 84, 87)
PANEL UNREG
BL LEVEL
INVERTER MODULE
ND5500 BACK LIGHT
D5502
IC5801 TIMING GENERATOR
IC5601
IC5600 RGB DRIVE
IC5800 EVR
IC6000 T6000 DC/DC CONVERTER
IC6001 REGULATOR
15.5V
12.75V
LPF
VR, VG, VB
LCD901 LCD PANEL
CN1000
CN1001
CN1002
CN5600
CN5601
CN5602
XHD
XVD
R, G, B
XV REVERSE
MODE, SCK, SO, D/A
MODE SCK, D/A, SO
CC-100 BOARD
(SEE PAGE 4-63)
MR-39 BOARD (SEE PAGE 4-63, 67, 71)
IR D8602 D8603
CN6101
IC6101 RF INTERFACE
IC2701 A/D CONVERTER
IC2702 PLL
IC2704 EQ
IC2703 REC/PB AMP
IC3101 ATF
REC DATA, REC CLK
PB DATA
PB CLK
PB RF
JSWP
ODD
EVEN
CN2708
RF BLOCK
ATF ERR
GAIN UP, RF MUTE
ATF CLK
IC3100 MECHA CONTROL
TALLY
IC2700 EVR
IC6102 EEPROM
IC6103 REMOTE CONTROL RECEIVER
CAP FG
CAP ON, CAP FWD
CAP PWM
DRUM PWM
IC3103 LPF
IC3102 LPF
DD-103 BOARD(2/2)
(SEE PAGE 4-102)
IC3900 PWM DRIVE
CN3900
CN6102
CAP VSC
DRUM VSC
DRUM VS
CAPSTAN FG AMP
IC3103 CAPSTAN MOTOR DRIVE
IC3104 DRUM MOTOR DRIVE
IC3102 DRUM MOTOR DRIVE
DRUM ON, DRUM CLK, DRUM F/R
DRUM FG
DRUM PG
DRUM FG AMP
DRUM PG AMP
LOAD
UNLOAD
LOADING MOTOR PRE DRIVE
IC3104 LOADING MOTOR DRIVE
TREEL FG
SREEL FG
REEL FG AMP
TAPE END
TAPE TOP
TAPE END DETECT
TAPE TOP DETECT
DEW DET
TAPE LED ON
REC PROOF SW
MODE SW A - MODE SW D
MD BLOCK
CN3100
CN3101
CN3102
CN3103
CN3104
D200-MECHA DECK
DRUM
CAPSTAN FG
CAPSTAN MOTOR M902
DRUM MOTOR M901
DRUM FG
DRUM PG
M903 LOADING MOTOR
DEW SENSOR
T REEL SENSOR
S REEL SENSOR
TAPE END SENSOR Q902
TAPE TOP SENSOR Q901
TAPE LED D901
REC PROOF S901
4PIN CONNECTOR
CC DOWN S903
MODE SWITCH S902
VF-117 BOARD (SEE PAGE 4-93, 96)
IC4500 REG
12V
IC4400 BACKLIGHT DRIVE
DRIVE PULSE
ND4600 BACK LIGHT
IC4501 EVR
IC4502 RGB DRIVE
IC4504 TIMING GENERATOR
XVD, XHD
CN4400
CN4500
LCD902 LCD PANEL

NTSC MODEL:DCR-PC10
PAL MODEL:DCR-PC10E

VTR REC MODEL:DCR-PC10,
DCR-PC10E(EXCEPT AEP, UK MODEL)
PLAYER MODEL:DCR-PC10E(AEP, UK MODEL)

3-2. POWER SUPPLY BLOCK DIAGRAM

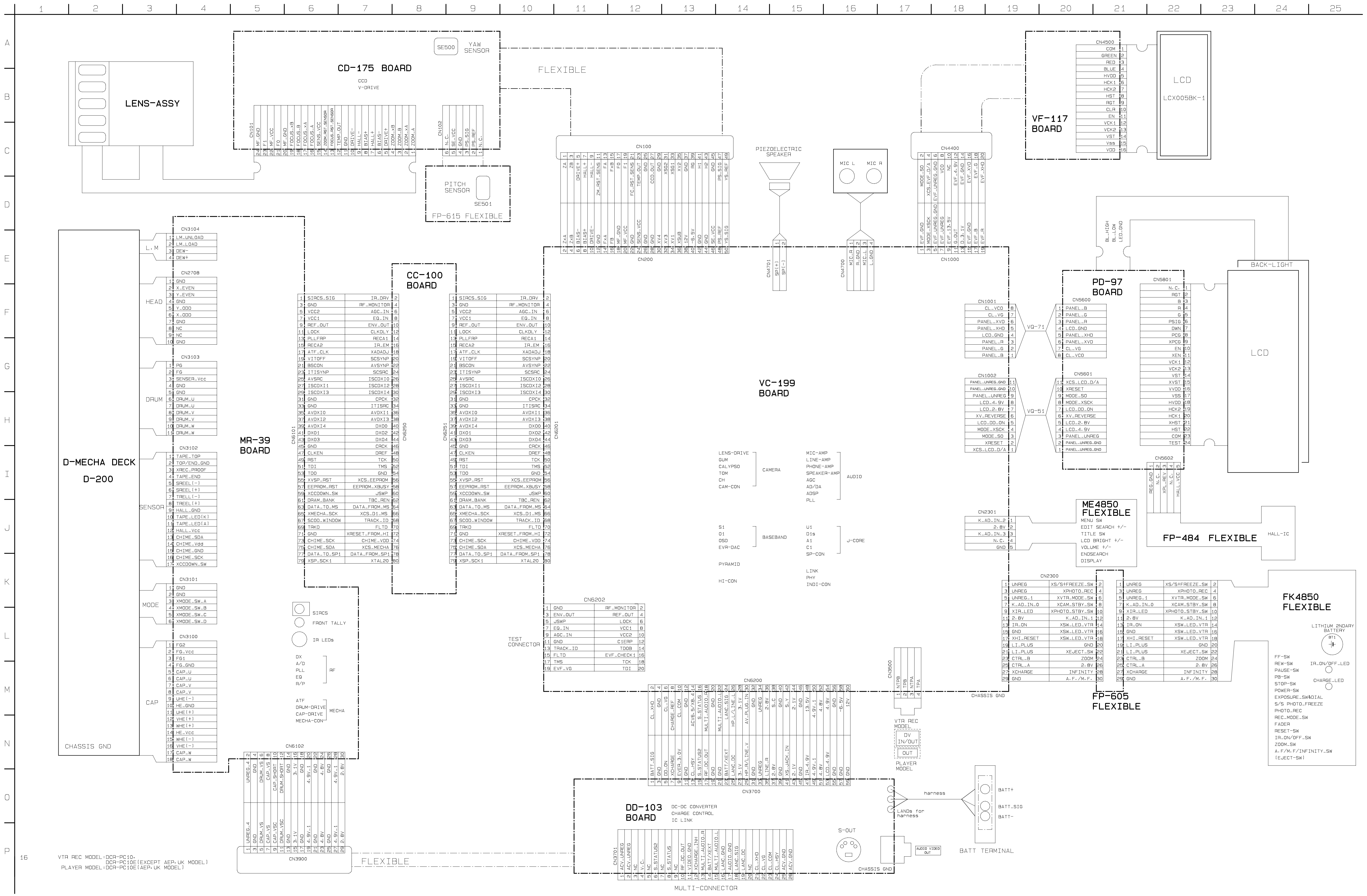
DD-103 BOARD (SEE PAGE 4-99)
IC3900 DC/DC CONVERTER
IC3901 BATTERY CHARGE CONTROL
IC3902 REG
IC3904 REG
DRUM/CAPSTAN PWM
BATTERY TERMINAL
NTSC MODEL
PAL MODEL
VC-199 BOARD (SEE PAGE 4-17, 21, 23, 26, 29, 32, 35, 38, 41, 46, 49, 53)
HI BLOCK
IC2300
IC2301
IC2302 MODE CONTROL
IC2304 EEPROM
IC2305
SP BLOCK
IC2100 SIGNAL PROCESS CONTROL
BB BLOCK
IC1100 S/I
IC1101 EVR
IC1102 VIDEO OUT
IC1103 CHARACTER GENERATOR
IC1104 POWER SAVE SW
IC1105 IC1106 GATE
JC BLOCK
IC1900 CLOCK/SYNC
IC1901 AUDIO SIGNAL PROCESS
IC1700 VRAM
IC1701
IC1500
IC1501 IC1502 SRAM
ID BLOCK
IC3500 ID CONTROL
IC3501 ID SIGNAL PROCESS
IC3502 ID INTERFACE
CA BLOCK
IC214 DIGITAL ZOOM
IC211 CAMERA SIGNAL PROCESS
IC205 CAMERA CONTROL
IC202 EEPROM
IC206 STEADY SHOT
IC216 A/D CONVERTER S/H AGC
IC207 VCO
IC208 EVR
IC200 TIMING GENERATOR
IC404 FOCUS/ZOOM PRE DRIVE
IC402 FOCUS/ZOOM MOTOR DRIVE
IC407 SENSOR AMP
IC405 SWITCH
IC406 SWITCH
IC403, IC401 IRIS DRIVE HALL AMP
IR BLOCK
IC8401 IR
IC8403 OSC
PY BLOCK
IC1001 GATE
IC1000 RGB DECODER
AU BLOCK
IC4714 SPEAKER AMP
IC4715 IC4716 SWITCH
IC4701 IC4707 A/D-D/A CONVERTER
IC4712 PLL FILTER
IC4704 LINE OUT AMP
IC4705 SWITCH
IC4706 HEADPHONE AMP
IC4700 ASC
IC4703 MIC EXT/INT SWITCH
IC4709 MIC AMP
IC4710 ADSP
IC4711 PLL
IC4717 IC4718 LINE AMP
FUNCTION SW BLOCK (FK4850)
FUNCTION SW BLOCK (ME4850)
VF-117 BOARD (SEE PAGE 4-93, 96)
IC4400 INVERTER T4400 (BACKLIGHT) DRIVE
IC4500 REG
IC4502 RGB AMP
IC4501 EVR
IC4504 TIMING GENERATOR
LCD PANEL
PD-97 BOARD (SEE PAGE 4-81, 84, 87)
IC6000 DC/DC CONVERTER
IC6001 REG
IC5601 BUFF
IC5801 TG
IC5600 RGB DRIVER
IC5800 EVR
LCD901 LCD PANEL
FP-484 BOARD
IC1 PANEL REVERSE SENSOR
CD-175 BOARD (SEE PAGE 4-7)
IC100 V DRIVE
IC101 CCD IMAGER
LENS ASSY
ZOOM RESET SENSOR
FOCUS RESET SENSOR
MR-39 BOARD (SEE PAGE 4-63, 67, 71)
MD-BLOCK
IC3103 CAPSTAN MOTOR DRIVE
IC3100 MECHA CONTROL
IC3101 ATF
IC3102 DRUM/LOADING MOTOR PRE DRIVE
IC3104 DRUM/LOADING MOTOR DRIVE
RF-BLOCK
IC6103 REMOTE CONTROL RECEIVER
IC6102 EEPROM
IC6101 RF INTERFACE
IC2700 EVR
IC2702 PLL
IC2701 A/D CONVERTER
IC2704 EQ
IC2703 REC/PB AMP
D-200MECHA DECK
CAPSTAN MOTOR

NTSC MODEL:DCR-PC10
PAL MODEL:DCR-PC10E

VTR REC MODEL:DCR-PC10,
DCR-PC10E(EXCEPT AEP,UK MODEL)
PLAYER MODEL:DCR-PC10E(AEP,UK MODEL)

SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM

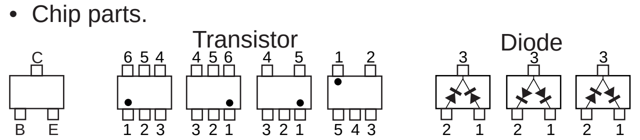

LENS-ASSY
CD-175 BOARD
CCD
V-DRIVE
SE500
YAW SENSOR
FLEXIBLE
CN101
CN102
PITCH SENSOR
SE501
FP-615 FLEXIBLE
CN100
CN200
PIEZOELECTRIC SPEAKER
CN4701
MIC L
MIC R
CN4700
CN4400
CN1000
VF-117 BOARD
CN4500
LCD
LCX005BK-1
D-MECHA DECK
D-200
L.M
CN3104
HEAD
CN2708
DRUM
CN3103
SENSOR
CN3102
MODE
CN3101
CAP
CN3100
CHASSIS GND
MR-39 BOARD
CN6101
CN6250
CC-100 BOARD
CN6251
CN6201
CN6102
CN3900
FLEXIBLE
SIRCS
FRONT TALLY
IR LEDs
VC-199 BOARD
CAMERA
AUDIO
BASEBAND
J-CORE
CN6202
TEST CONNECTOR
CN6200
CN3600
VTR REC MODEL
DV IN/OUT
PLAYER MODEL
CN3700
DD-103 BOARD
DC-DC CONVERTER
CHARGE CONTROL
IC LINK
CN3701
MULTI-CONNECTOR
S-OUT
AUDIO VIDEO OUT
CHASSIS GND
harness
LANDs for harness
BATT+
BATT-SIG
BATT-
BATT TERMINAL
CN1001
CN1002
VQ-71
VQ-51
PD-97 BOARD
CN5600
CN5601
CN5801
CN5602
BACK-LIGHT
LCD
CN2301
ME4850 FLEXIBLE
MENU SW
EDIT SEARCH +/-
TITLE SW
LCD BRIGHT +/-
VOLUME +/-
ENDSEARCH
DISPLAY
FP-484 FLEXIBLE
HALL-IC
CN2300
FP-605 FLEXIBLE
FK4850 FLEXIBLE
LITHIUM 2NDARY BATTERY
IR ON/OFF LED
CHARGE LED
FF-SW
REW-SW
PAUSE-SW
PB-SW
STOP-SW
POWER-SW
EXPOSURE.SW&DIAL
S/S PHOTO.FREEZE
PHOTO.REC
REC.MODE.SW
FADER
RESET-SW
IR.ON/OFF.SW
ZOOM.SW
A.F/M.F/INFINITY.SW
(EJECT-SW)
VTR REC MODEL:DCR-PC10,
DCR-PC10E(EXCEPT AEP,UK MODEL)
PLAYER MODEL:DCR-PC10E(AEP,UK MODEL)

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

THIS NOTE IS COMMON FOR WIRING BOARDS AND SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For printed wiring boards)

- ▒: Pattern from the side which enables seeing.
  (The other layers' patterns are not indicated.)
- Through hole is omitted.
- Circled numbers refer to waveforms.
- There are few cases that the part printed on diagram isn't mounted in this model.
- Chip parts.


Transistor
Diode
C
B E
6 5 4
1 2 3
4 5 6
3 2 1
4 5
3 2 1
1 2
5 4 3
3
2 1
3
2 1
3
2 1

(For schematic diagrams)

- All capacitors are in μF unless otherwise noted. pF : μμF. 50V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10W unless otherwise noted. kΩ=1000Ω, MΩ=1000kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

Example C541 L452
22U 10UH
TA A 2520

Kinds of capacitor
Temperature characteristics
External dimensions (mm)

- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with ★ differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → EDIT PB/XREC → PB/$\overline{\text{REC}}$
- ⊟: non flammable resistor
- ⊟: fusible resistor
- ☐: panel designation
- ━━: B+ Line ✻
- ━ ━ ━: B– Line ✻
- ⇨ : IN/OUT direction of (+,–) B LINE. ✻
- ☐: adjustment for repair. ✻
- Circled numbers refer to waveforms. ✻

✻ Indicated by the color red.

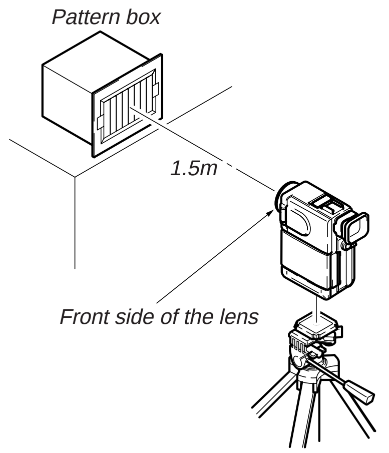
Note : Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifie.

Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

(Measuring conditions voltage and waveform)

- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values * and reference waveforms.
  (VOM of DC 10 MΩ input impedance is used.).
- Voltage values change depending upon input impedance of VOM used.)

1. Connection


Pattern box
1.5m
Front side of the lens

2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

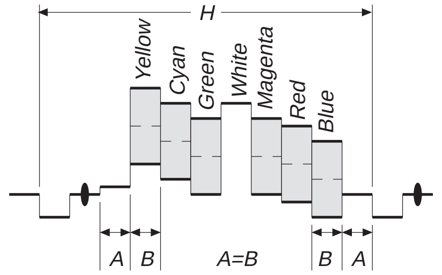


Fig. a (Video output terminal output waveform)

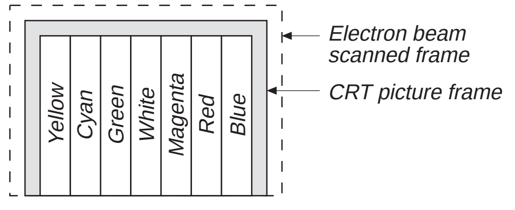

Yellow
Cyan
Green
White
Magenta
Red
Blue
Electron beam scanned frame
CRT picture frame

Fig.b (Picture on monitor TV)

When indicating parts by reference number, pleas include the board name.

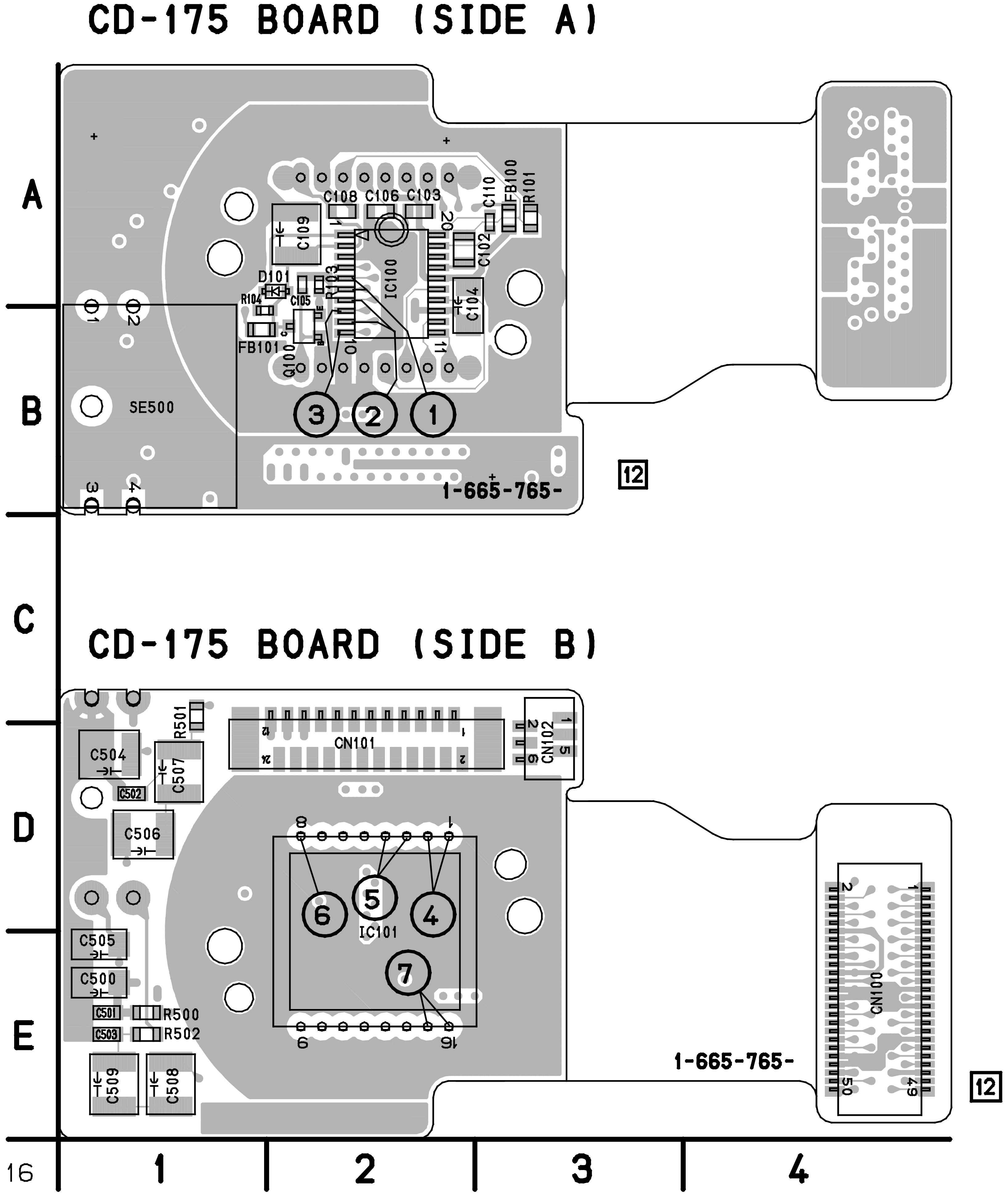
CD-175 (CCD IMAGER) PRINTED WIRING BOARD

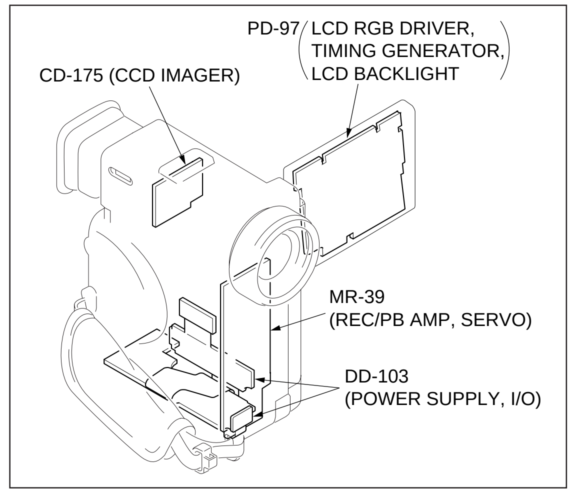
— Ref. No.: CD-175 board; 1,000 series —

There are few cases that the part printed on this diagram isn't mounted in this model.

CD-175 BOARD

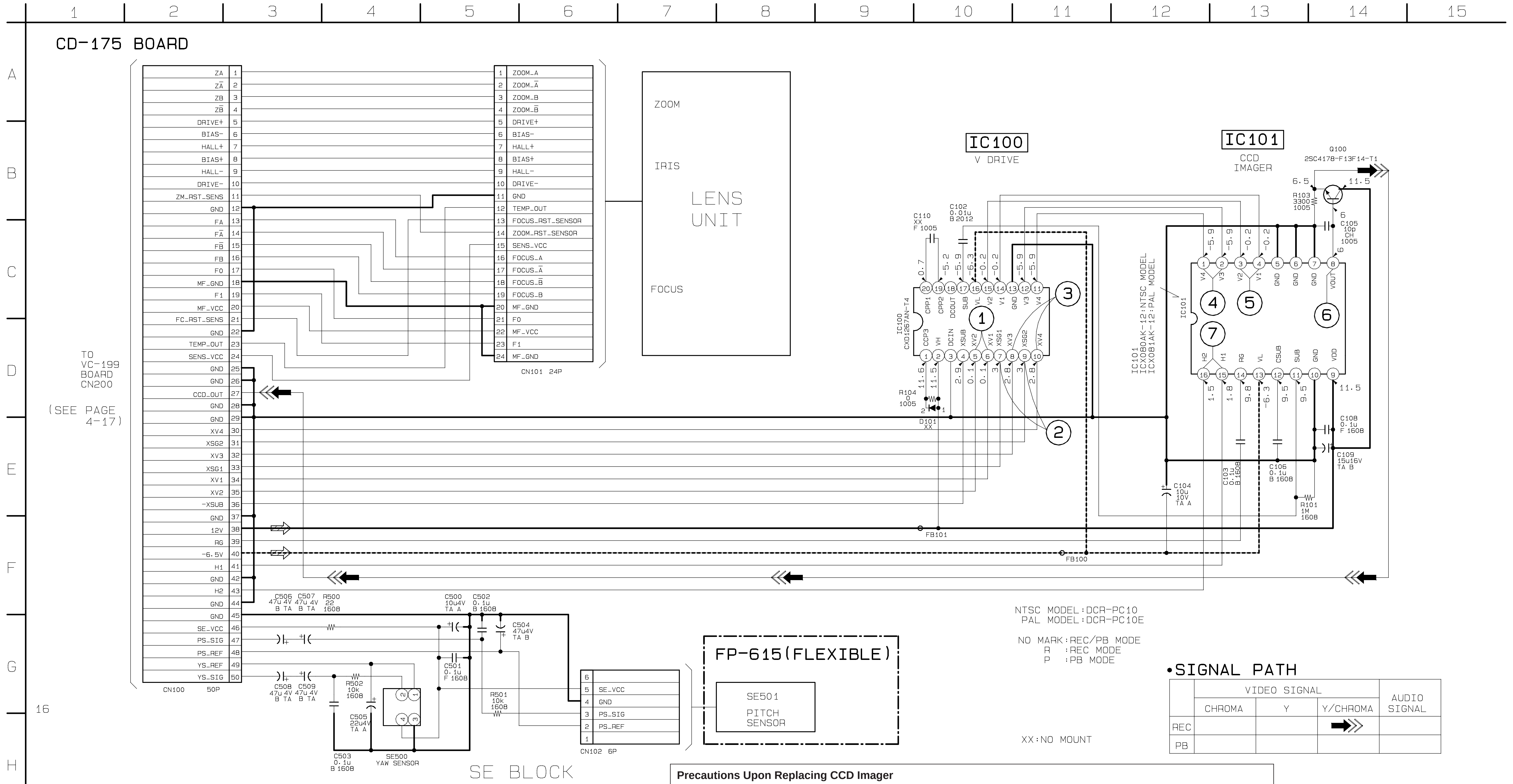
CN6250	A-4
CN6251	D-4
C102	A-2
C103	A-2
C104	A-2
C105	A-2
C106	A-2
C108	A-2
C109	A-2
C500	E-1
C501	E-1
C502	D-1
C503	E-1
C504	D-1
C505	E-1
C506	D-1
C507	D-1
C508	E-1
C509	E-1
CN100	E-4
CN101	D-2
CN102	D-3
FB100	A-3
FB101	B-1
IC100	A-2
Q100	B-2
R101	A-3
R103	A-2
R104	B-1
R500	E-1
R501	D-1
R502	E-1
SE500	B-1


CD-175 BOARD (SIDE A)
A
B
C
D
E
C108 C106 C103
C110
FB100
R101
C109
C102
IC100
C104
D101
R104
C105
R103
FB101
Q100
SE500
1
20
10
11
③ ② ①
1-665-765-
12
CD-175 BOARD (SIDE B)
C504
R501
C507
C502
CN101
CN102
C506
IC101
⑥ ⑤ ④
⑦
8
1
9
16
C505
C500
C501 R500
C503 R502
C509
C508
CN100
2
50
1
49
1-665-765-
12
16
1
2
3
4


CD-175 (CCD IMAGER)
PD-97 (LCD RGB DRIVER, TIMING GENERATOR, LCD BACKLIGHT)
MR-39 (REC/PB AMP, SERVO)
DD-103 (POWER SUPPLY, I/O)

CD-175 (CCD IMAGER) SCHEMATIC DIAGRAM

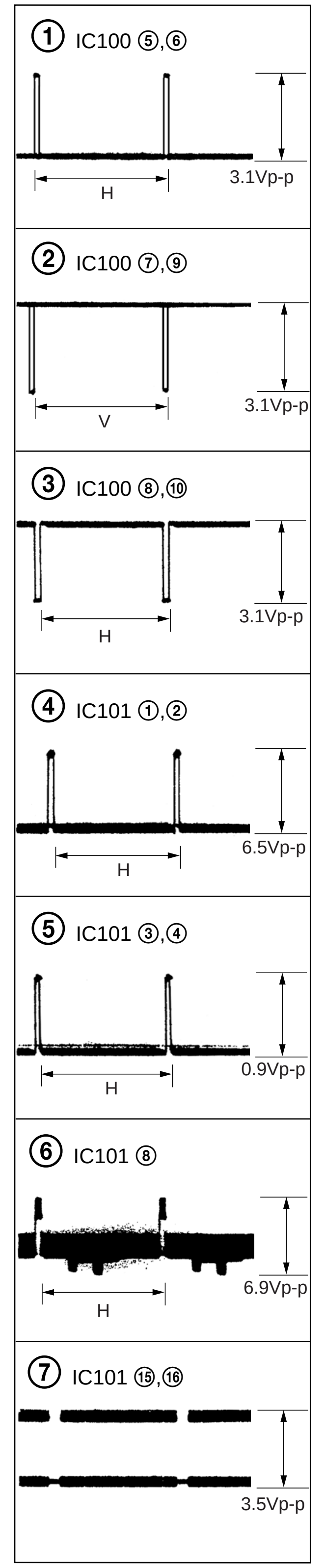
— Ref. No.: CD-175 board; 1,000 series —


CD-175 BOARD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H
16
TO VC-199 BOARD CN200
(SEE PAGE 4-17)
CN100 50P
ZA ZĀ ZB Z̄B DRIVE+ BIAS- HALL+ BIAS+ HALL- DRIVE- ZM_RST_SENS GND FA FĀ F̄B FB F0 MF_GND F1 MF_VCC FC_RST_SENS GND TEMP_OUT SENS_VCC GND GND CCD_OUT GND GND XV4 XSG2 XV3 XSG1 XV1 XV2 -XSUB GND 12V RG -6.5V H1 GND H2 GND GND SE_VCC PS_SIG PS_REF YS_REF YS_SIG
CN101 24P
ZOOM_A ZOOM_Ā ZOOM_B ZOOM_B̄ DRIVE+ BIAS- HALL+ BIAS+ HALL- DRIVE- GND TEMP_OUT FOCUS_RST_SENSOR ZOOM_RST_SENSOR SENS_VCC FOCUS_A FOCUS_Ā FOCUS_B̄ FOCUS_B MF_GND F0 MF_VCC F1 MF_GND
LENS UNIT
ZOOM
IRIS
FOCUS
IC100
V DRIVE
IC100 CXD1267AN-T4
CPP1 CPP2 DCOUT SUB VL V2 V1 GND V3 V4
CCP3 VH DCIN XSUB XV2 XV1 XSG1 XV3 XSG2 XV4
IC101
CCD IMAGER
IC101 ICX080AK-12:NTSC MODEL ICX081AK-12:PAL MODEL
V4 V3 V2 V1 GND GND GND VOUT
H2 H1 RG VL CSUB SUB GND VDD
Q100 2SC4178-F13F14-T1
R103 3300 1005
C105 10p CH 1005
C102 0.01u B 2012
C110 XX F 1005
R104 0 1005
D101 XX
C104 10u 10V TA A
C103 0.1u B 1608
C106 0.1u B 1608
C108 0.1u F 1608
C109 15u16V TA B
R101 1M 1608
FB101
FB100
C506 47u 4V B TA
C507 47u 4V B TA
R500 22 1608
C500 10u4V TA A
C502 0.1u B 1608
C504 47u4V TA B
C501 0.1u F 1608
C508 47u 4V B TA
C509 47u 4V B TA
R502 10k 1608
C505 22u4V TA A
R501 10k 1608
C503 0.1u B 1608
SE500 YAW SENSOR
SE BLOCK
FP-615 (FLEXIBLE)
SE501 PITCH SENSOR
CN102 6P
SE_VCC GND PS_SIG PS_REF
NTSC MODEL:DCR-PC10
PAL MODEL:DCR-PC10E
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
XX:NO MOUNT
•SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB

Precautions Upon Replacing CCD Imager

- The CD-175 board mounted as a repair part is not equipped with a CCD imager.
  When replacing this board, remove the CCD imager from the old one and mount it onto the new one.
- If the CCD imager has been replaced, carry out all the adjustments for the camera section.
- As the CCD imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

CD-175 BOARD
(CAMERA REC)



VC-199 BOARD

C208	C-17	C1005	A-22	C2112	E-19	C4750	G-8	C4852	F-8	FB200	C-17	IC4716	G-8	Q4701	H-5	R410	B-12	R1132	D-4	R2307	C-23	R2388	A-10	R4765	H-6	R4873	F-7
C209	C-17	C1009	A-21	C2304	C-26	C4751	F-7	C8401	A-24	FB203	A-17	IC4717	G-8	Q4702	H-4	R411	B-12	R1133	F-2	R2308	D-27	R2389	A-5	R4766	H-6	R4874	E-7
C212	C-18	C1010	B-22	C2305	C-26	C4752	G-7	C8402	A-26	FB204	B-19	IC4718	E-9	Q4703	H-4	R412	B-13	R1134	F-2	R2309	D-23	R2390	C-23	R4767	H-4	R4875	E-6
C215	C-18	C1011	A-22	C2306	B-27	C4753	F-7	C8403	B-25	FB205	A-7	IC8401	B-24	Q4704	H-7	R413	B-13	R1135	F-2	R2311	B-23	R2391	E-25	R4777	A-14	R4876	E-7
C216	B-18	C1013	A-21	C2307	B-27	C4754	G-7	C8404	C-25	FB206	B-18	IC8403	A-3	Q4711	G-6	R414	A-12	R1136	E-2	R2312	B-23	R2392	E-25	R4790	E-6	R4877	E-7
C222	C-19	C1100	A-6	C2308	B-27	C4761	F-6	C8405	B-25	FB207	B-19			Q4712	G-6	R415	B-13	R1137	F-2	R2313	B-23	R2393	E-25	R4798	B-15	R4878	F-10
C223	C-19	C1101	C-6	C2309	D-4	C4762	E-6	C8406	C-25	FB401	A-16	L203	C-19	Q4713	G-5	R416	A-12	R1138	D-2	R2314	B-23	R2394	B-3	R4799	B-15	R4879	G-8
C229	A-17	C1102	A-5	C2310	D-25	C4763	H-4	C8407	A-3	FB1100	C-6	L207	B-10	Q4714	G-5	R417	B-12	R1139	D-2	R2315	D-23	R2395	B-3	R4800	C-15	R4880	G-8
C230	A-17	C1103	B-5	C2311	D-25	C4764	H-6	C8408	B-24	FB1101	C-4	L209	B-18	Q4715	G-6	R418	B-12	R1140	D-2	R2316	B-23	R2396	A-3	R4801	A-14	R4887	G-21
C231	B-10	C1104	B-5	C2312	D-23	C4765	H-6	C8409	B-25	FB1500	C-7	L218	B-11	Q4716	F-5	R419	A-19	R1141	E-2	R2317	B-23	R2397	D-26	R4802	A-14	R4890	H-20
C233	B-10	C1105	B-5	C2313	D-4	C4766	H-5	C8410	B-25	FB1501	C-21	L401	A-12	Q4717	F-6	R420	A-12	R1142	E-2	R2318	D-26	R2398	D-26	R4803	C-15	R4891	G-8
C234	B-10	C1106	C-5	C2314	E-4	C4767	D-6	C8411	B-25	FB1900	D-7	L402	A-15	Q4718	F-6	R421	A-16	R1143	E-2	R2319	C-25	R2399	H-9	R4804	B-15	R4892	F-8
C236	A-9	C1107	C-6	C2317	E-27	C4768	D-6	C8412	B-25	FB2100	G-18	L403	D-10	Q4719	G-6	R422	A-16	R1144	D-3	R2320	C-25	R2401	F-23	R4805	B-15	R4893	G-9
C237	A-9	C1108	B-5	C2320	D-25	C4771	D-7	C8413	B-24	FB3501	E-27	L1000	B-21	Q4720	E-10	R423	C-19	R1145	E-3	R2321	C-25	R2402	F-23	R4806	C-15	R4894	E-10
C238	A-10	C1109	C-6	C2321	D-25	C4772	E-7	C8414	B-24	FB3502	E-27	L1100	C-6	Q4721	E-10	R424	C-10	R1149	D-3	R2322	C-23	R2403	A-5	R4808	G-18	R4895	E-10
C241	B-9	C1110	C-6	C2322	D-25	C4773	D-7	C8415	B-23	FB4702	H-9	L1101	C-6	Q4722	E-11	R425	C-11	R1150	D-3	R2324	C-24	R2404	A-5	R4809	G-20	R4896	F-10
C243	B-19	C1112	C-5	C2329	D-29	C4774	E-7	C8416	B-24			L1102	C-4	Q4723	E-11	R426	C-10	R1152	D-3	R2325	C-24	R2405	A-4	R4810	G-20	R4897	G-9
C257	D-19	C1114	C-5	C2330	A-27	C4775	D-7	C8417	A-23	FL1100	C-5	L1103	D-4	Q4726	H-8	R427	C-10	R1153	C-3	R2326	C-23	R2406	D-5	R4811	H-21	R4898	F-9
C267	A-19	C1115	D-5	C2332	B-27	C4776	D-7	C8418	A-25	FL1101	D-5	L1104	F-2	Q4727	F-5	R428	D-10	R1154	C-7	R2327	C-24	R3500	G-1	R4812	H-21	R4899	G-9
C268	A-18	C1116	D-4	C2334	B-26	C4788	C-15	C8419	A-25			L1500	C-7	Q4728	E-5	R429	C-10	R1155	C-5	R2328	C-23	R3501	E-25	R4813	H-21	R4900	G-9
C288	B-10	C1117	D-4	C2335	B-26	C4789	A-13	C8420	A-24	IC200	B-17	L1501	C-21	Q4729	F-10	R431	B-10	R1157	A-6	R2329	C-24	R3528	F-25	R4814	G-20	R4901	F-9
C293	B-12	C1118	C-4	C2336	C-26	C4790	A-14	C8421	A-25	IC202	D-18	L1900	C-7	Q8401	A-23	R432	C-11	R1158	D-3	R2330	B-26	R3529	F-25	R4815	H-20	R4902	F-9
C294	B-12	C1119	D-4	C2341	D-25	C4791	C-15	C8422	A-23	IC205	D-19	L1901	D-9	Q8402	A-4	R433	B-10	R1159	B-5	R2331	C-26	R3530	G-25	R4816	G-21	R4903	F-9
C295	B-12	C1120	C-4	C2342	D-25	C4792	C-15	C8424	A-25	IC206	A-19	L1902	C-8	Q8403	A-4	R434	C-10	R1160	B-5	R2332	E-25	R3531	G-26	R4817	H-21	R4904	F-9
C296	B-12	C1121	D-3	C2343	E-23	C4793	A-15	C8425	A-4	IC207	A-10	L2100	G-18	Q8404	A-4	R435	D-10	R1161	C-4	R2333	D-5	R3532	G-26	R4818	H-21	R4905	F-9
C297	B-12	C1122	C-4	C2344	C-23	C4794	C-15	C8426	B-25	IC208	A-17	L2301	B-3			R436	D-10	R1162	C-4	R2334	E-23	R3533	G-26	R4819	H-6	R4906	F-9
C298	A-12	C1123	C-3	C2346	E-3	C4795	A-15	C8427	A-25	IC211	B-20	L3504	D-27	R205	C-18	R437	B-10	R1163	D-3	R2335	E-5	R3534	F-27	R4820	G-5	R4907	E-9
C300	A-12	C1124	C-4	C2348	B-4	C4796	C-15	C8428	A-25	IC214	B-8	L3505	F-2	R210	E-18	R438	D-10	R1502	E-23	R2337	D-26	R3535	F-27	R4821	G-6	R4908	E-9
C301	A-10	C1125	D-3	C2349	E-25	C4797	A-15	C8429	A-5	IC216	B-11	L3506	D-27	R213	E-18	R439	B-10	R1900	E-8	R2338	D-27	R3538	H-1	R4822	G-6	R4910	D-6
C302	A-11	C1126	C-3	C2350	E-25	C4798	A-15	C8430	A-23	IC401	B-13	L4700	D-6	R223	C-18	R440	C-15	R1901	E-8	R2339	C-27	R3539	H-1	R4823	H-6	R6200	D-26
C303	A-11	C1127	D-3	C2351	D-25	C4799	C-15	C8431	B-23	IC402	B-16	L4701	D-6	R224	B-10	R1000	B-22	R1903	D-9	R2340	B-26	R3540	H-1	R4824	F-6	R8401	B-25
C304	A-10	C1128	D-3	C2353	B-3	C4800	A-15	C8432	A-23	IC403	B-12	L4702	D-7	R225	A-10	R1001	A-22	R1904	C-9	R2341	C-27	R3541	H-2	R4825	F-6	R8402	B-25
C305	A-10	C1129	C-3	C2354	B-3	C4802	H-18	C8435	A-3	IC404	A-16	L4703	H-9	R226	D-18	R1002	A-22	R1905	D-9	R2342	D-27	R3542	G-1	R4826	F-6	R8403	B-25
C307	B-11	C1130	D-2	C2355	C-25	C4803	G-20	C8436	A-3	IC405	C-10	L4705	H-9	R227	D-18	R1003	A-21	R1906	D-9	R2343	B-26	R3543	H-1	R4827	F-6	R8405	B-25
C308	C-11	C1131	D-3	C2356	C-25	C4806	G-18			IC406	B-10	L4706	H-7	R228	D-18	R1004	A-21	R1907	D-9	R2345	E-5	R3544	H-1	R4828	F-6	R8406	B-25
C309	B-7	C1132	C-3	C2357	C-25	C4808	G-20	CN200	C-12	IC407	C-10	L8402	A-23	R234	B-9	R1005	A-21	R1908	D-7	R2346	C-25	R3545	H-1	R4829	F-6	R8407	B-25
C310	B-11	C1133	E-3	C3500	F-25	C4809	H-20	CN1000	A-13	IC1000	A-22	L8403	B-23	R235	B-10	R1006	B-21	R1909	D-7	R2347	C-24	R3546	H-1	R4830	F-6	R8408	A-3
C311	A-12	C1134	E-2	C3501	E-23	C4811	H-20	CN1001	F-11	IC1001	B-22	L8404	B-23	R236	B-10	R1007	A-21	R1911	D-7	R2348	E-24	R3556	F-27	R4831	F-6	R8409	B-25
C312	B-17	C1135	D-3	C3504	F-25	C4812	G-21	CN1002	D-11	IC1100	B-6			R238	B-10	R1008	A-21	R1912	D-7	R2349	E-25	R3557	E-23	R4832	F-5	R8410	B-23
C313	C-17	C1136	F-2	C3506	F-27	C4813	H-21	CN2300	B-5	IC1101	B-2	Q203	C-11	R240	A-9	R1029	B-21	R1914	C-8	R2350	A-26	R3560	G-26	R4833	F-5	R8411	B-24
C316	A-9	C1137	E-3	C3512	G-26	C4814	H-21	CN2301	H-10	IC1102	C-3	Q204	C-11	R244	C-18	R1030	B-21	R1916	C-9	R2351	C-27	R3561	F-27	R4834	F-5	R8413	A-23
C317	C-19	C1139	D-3	C3514	H-1	C4815	F-6	CN3500	I-27	IC1103	C-2	Q205	C-11	R245	C-18	R1031	B-22	R1917	C-7	R2352	C-27	R3562	F-27	R4835	F-5	R8415	A-24
C318	C-18	C1140	B-2	C3520	F-27	C4816	F-6	CN4700	B-14	IC1104	C-3	Q207	C-11	R257	C-11	R1032	B-21	R1918	C-9	R2353	C-26	R4700	F-10	R4836	G-5	R8416	A-24
C401	C-14	C1141	C-3	C3521	F-27	C4817	F-6	CN4701	H-8	IC1105	E-2	Q209	C-16	R283	C-7	R1033	A-21	R1919	C-8	R2354	D-25	R4701	F-10	R4837	G-5	R8417	A-24
C402	B-14	C1143	E-2	C3527	G-1	C4818	F-6	CN6200	D-26	IC1106	E-2	Q401	C-14	R286	D-19	R1034	A-21	R1920	D-9	R2355	E-23	R4702	G-9	R4838	F-6	R8418	A-5
C403	B-14	C1500	C-7	C3528	E-27	C4821	E-6	CN6201	H-24	IC1500	E-22	Q402	B-13	R295	A-10	R1035	A-21	R1921	C-9	R2356	D-23	R4704	G-9	R4839	F-5	R8421	E-5
C404	A-13	C1501	B-21	C3529	G-1	C4822	D-10	CN6202	H-21	IC1501	C-22	Q403	C-19	R298	C-18	R1036	D-10	R1922	C-9	R2357	E-23	R4705	G-9	R4840	G-6	R8423	A-25
C405	A-13	C1502	D-22	C3530	F-27	C4823	F-10			IC1502	D-20	Q1000	B-21	R299	D-18	R1100	B-5	R1924	F-18	R2358	D-23	R4706	G-9	R4841	G-6	R8424	A-25
C406	C-16	C1503	C-21	C3531	B-27	C4824	E-10	D200	C-17	IC1700	F-20	Q1001	A-21	R304	C-17	R1101	B-5	R1925	F-18	R2359	D-23	R4707	G-9	R4843	E-10	R8429	B-23
C407	C-16	C1504	F-22	C4700	C-6	C4825	H-7	D202	A-10	IC1701	F-22	Q1002	A-21	R305	B-17	R1102	B-7	R1926	E-8	R2360	C-23	R4708	G-11	R4844	E-10	R8430	B-24
C408	B-13	C1506	D-20	C4701	F-10	C4826	H-7	D203	A-9	IC1900	D-8	Q1007	A-21	R308	C-19	R1103	B-7	R1927	D-9	R2361	C-23	R4709	G-11	R4845	E-10	R8431	B-25
C409	C-15	C1700	D-21	C4702	F-9	C4827	G-7	D1900	D-9	IC1901	G-19	Q1008	B-22	R309	C-19	R1104	B-5	R1928	E-9	R2362	C-23	R4711	G-11	R4846	E-10	R8432	B-23
C410	B-12	C1703	F-22	C4703	F-10	C4828	G-7	D1901	D-9	IC2100	E-18	Q1009	B-21	R313	B-18	R1105	C-7	R2119	E-18	R2363	D-26	R4712	F-11	R4847	E-10	R8435	A-24
C411	B-15	C1704	F-22	C4704	F-10	C4829	G-8	D1902	D-7	IC2300	E-3	Q1010	B-22	R314	B-19	R1106	B-5	R2120	E-18	R2364	D-26	R4724	E-9	R4848	E-10	R8438	B-25
C412	A-12	C1705	D-20	C4705	F-9	C4830	G-7	D1903	C-8	IC2301	C-26	Q1100	C-5	R319	C-19	R1107	C-7	R2121	E-19	R2365	D-26	R4730	E-8	R4852	F-10	R8441	A-3
C413	A-13	C1900	C-8	C4706	G-9	C4831	F-7	D1904	C-8	IC2302	D-24	Q1101	C-5	R321	D-19	R1108	B-7	R2122	E-19	R2366	D-27	R4738	F-7	R4853	E-10	R8442	A-4
C415	B-12	C1901	E-9	C4707	G-9	C4832	E-7	D2301	C-26	IC2304	A-26	Q1102	C-4	R323	C-11	R1109	C-7	R2123	E-19	R2367	D-27	R4739	F-7	R4854	F-10	R8443	A-4
C416	A-12	C1902	E-9	C4708	G-9	C4833	E-7	D2303	E-23	IC2305	B-26	Q1103	D-4	R324	C-11	R1110	C-7	R2124	E-19	R2368	E-24	R4740	F-8	R4855	E-10	R8445	B-25
C417	A-12	C1903	D-9	C4709	G-9	C4834	F-6	D2304	D-26	IC3500	F-24	Q1104	F-2	R327	B-11	R1111	B-5	R2125	F-19	R2369	D-27	R4741	F-8	R4856	G-8	R8447	A-4
C418	A-12	C1904	D-9	C4710	G-11	C4835	F-7	D2305	E-23	IC3501	F-26	Q1105	F-2	R328	C-15	R1112	C-5	R2126	F-19	R2370	D-27	R4742	G-8	R4857	G-8	R8448	A-4
C419	A-15	C1905	C-9	C4711	H-11	C4836	E-7	D2306	C-23	IC3502	G-27	Q1107	E-3	R329	D-18	R1113	C-5	R2127	F-18	R2371	D-26	R4743	F-8	R4858	G-8		
C420	A-16	C1906	C-9	C4725	F-8	C4837	F-18	D2307	E-3	IC4700	G-10	Q1108	F-3	R330	E-18	R1115	C-7	R2128	F-18	R2372	D-26	R4744	F-7	R4859	H-7	S2300	A-19
C424	B-10	C1907	D-7	C4727	F-7	C4838	F-18	D2309	A-19	IC4701	H-8	Q1109	C-5	R331	B-10	R1116	A-7	R2129	F-19	R2373	D-26	R4745	F-7	R4860	H-7		
C425	D-10	C1908	D-8	C4729	E-8	C4839	G-8	D4700	F-9	IC4703	E-10	Q1110	E-3	R332	D-10	R1117	C-5	R2130	E-19	R2374	D-27	R4746	G-8	R4861	H-7	X200	C-18
C426	C-10	C1909	D-7	C4730	E-8	C4840	H-20	D4702	F-11	IC4704	G-7	Q1111	E-3	R333	D-20	R1118	C-5	R2131	E-18	R2375	D-27	R4747	F-7	R4862	H-7	X201	D-10
C427	C-10	C1910	D-8	C4731	E-7	C4843	G-21	D4706	H-4	IC4705	H-6	Q2301	D-27	R401	C-13	R1119	D-5	R2132	E-18	R2376	E-25	R4748	F-7	R4863	H-7	X1900	D-8
C428	B-10	C1911	C-8	C4736	F-8	C4844	G-9	D4707	H-5	IC4706	E-7	Q2302	C-27	R402	C-14	R1122	C-4	R2133	E-19	R2377	E-25	R4749	F-7	R4864	G-8	X2100	E-19
C429	D-10	C1912	C-8	C4740	F-7	C4845	F-9	D4708	G-20	IC4707	E-6	Q2303	B-27	R403	B-13	R1123	C-4	R2172	F-18	R2378	D-26	R4750	G-8	R4865	E-5	X2300	D-5
C430	D-10	C1913	C-8	C4741	F-7	C4846	F-8	D4710	G-5	IC4709	B-15	Q2305	C-4	R404	B-14	R1125	C-4	R2180	F-18	R2379	D-27	R4751	G-8	R4867	E-9	X2301	E-5
C1000	B-21	C1914	C-9	C4743	F-7	C4847	F-8	D4711	E-10	IC4710	H-19	Q2306	D-23	R405	B-14	R1126	C-4	R2184	F-18	R2380	E-24	R4760	H-4	R4868	E-7	X3500	G-2
C1001	B-22	C1915	C-9	C4746	F-7	C4848	F-9	D4712	G-8	IC4711	H-20	Q2307	E-23	R406	A-13	R1127	C-4	R2185	E-19	R2381	D-27	R4761	G-6	R4869	E-7	X4700	H-9
C1002	B-22	C1916	C-9	C4747	G-7	C4849	F-9	D4713	E-9	IC4712	H-21	Q2308	B-4	R407	B-13	R1128	C-4	R2304	E-24	R2383	A-5	R4762	G-6	R4870	E-6	X8400	A-3
C1003	B-22	C1917	F-18	C4748	F-7	C4850	F-9	D4714	E-9	IC4714	H-7	Q2309	C-3	R408	B-13	R1129	C-3	R2305	C-24	R2384	B-3	R4763	H-6	R4871	F-6		
C1004	B-22	C2111	F-18	C4749	G-7	C4851	F-9	D4715	E-9	IC4715	G-7	Q2310	B-3	R409	B-13	R1130	B-3	R2306	C-24	R2387	B-5	R4764	G-6	R4872	E-7		

There are few cases that the part printed on this diagram isn't mounted in this model.

• See page 4-11for VC-199 BOARD printed wiring board.

VC-199 (MAIN) PRINTED WIRING BOARD

— Ref. No.: VC-199 board; 20,000 series —

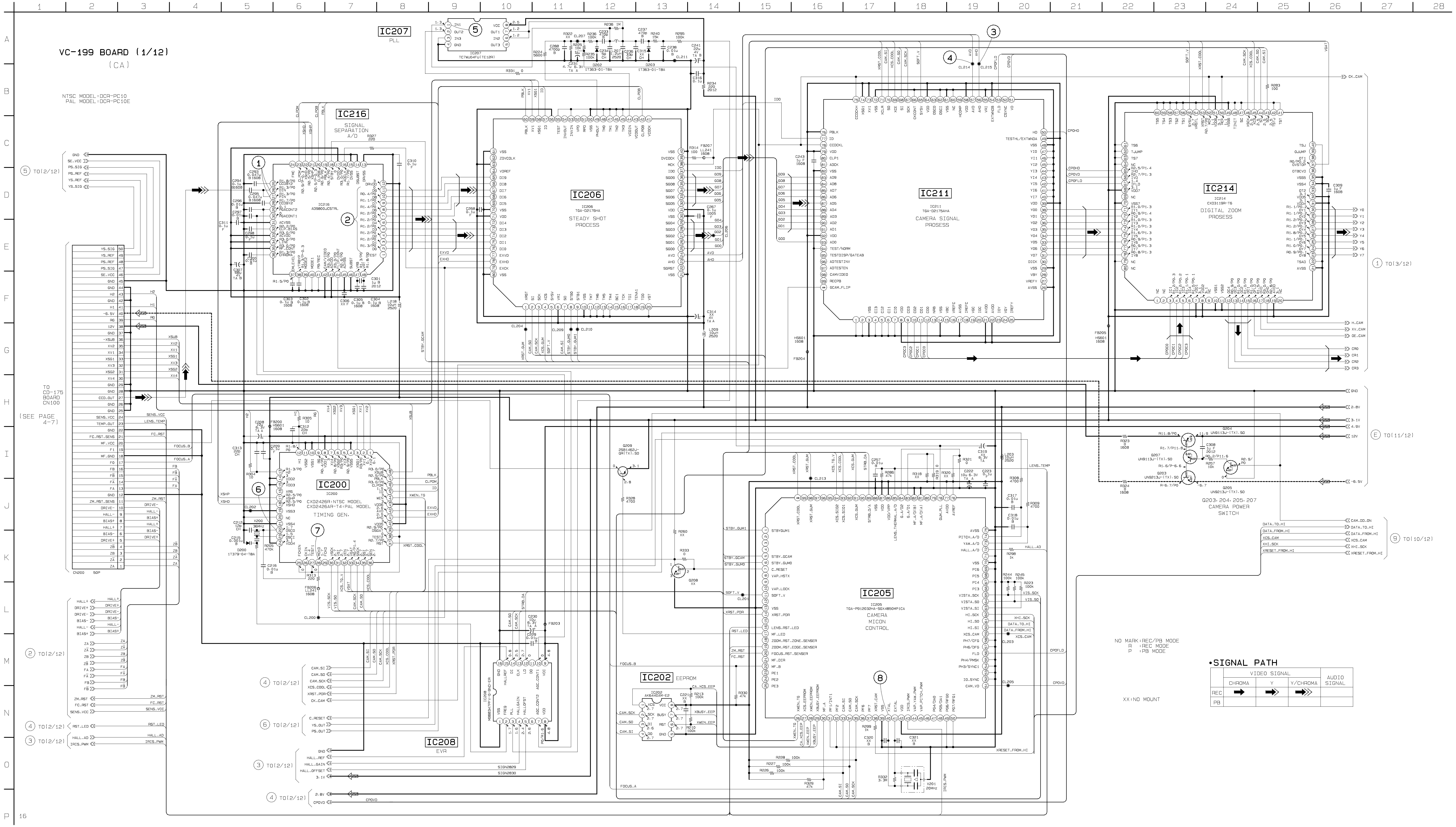
VC-199 BOARD (SIDE A)
VC-199 BOARD (SIDE B)
(LCD PANEL OPEN)
1-665-761-
Transistor
Diode
C
B E
VC-199
CAMERA, LENS DRIVE, I/O, BLOCKING, ECC, TBC, CHCD, AUDIO, DV I/O, IR TRANSMITTER, RGB DECODER, MODE CONTROL
VF-117 (EVF)
CC-100 (TRANSLATION)
PLAYER MODEL
OUT
VTR REC MODEL
DV IN/OUT
CN3500
11

VTR REC MODEL:DCR-PC10,
DCR-PC10E(EXCEPT AEP,UK MODEL)
PLAYER MODEL:DCR-PC10E(AEP,UK MODEL)

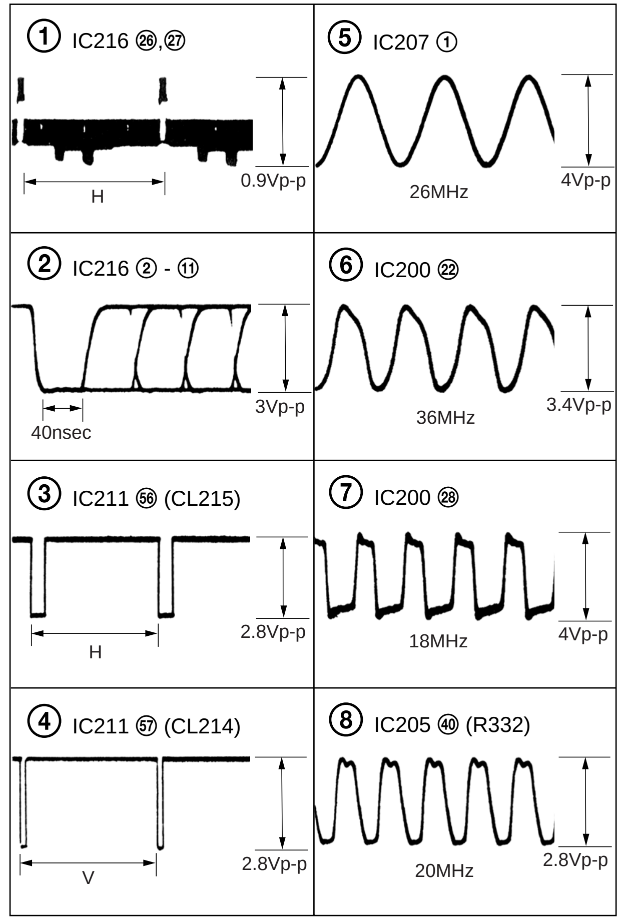
• Chip parts.

VC-199 (CAMERA) SCHEMATIC DIAGRAM

— Ref. No.: VC-199 board; 20,000 series —


VC-199 BOARD (1/12)
(CA)
NTSC MODEL:DCR-PC10
PAL MODEL:DCR-PC10E
IC207 PLL
IC216 SIGNAL SEPARATION A/D
IC206 STEADY SHOT PROCESS
IC211 CAMERA SIGNAL PROSESS
IC214 DIGITAL ZOOM PROSESS
IC200 CXD2426R:NTSC MODEL CXD2426AR-T4:PAL MODEL TIMING GEN.
IC205 CAMERA MICON CONTROL
IC202 EEPROM
IC208 EVR
Q203·204·205·207 CAMERA POWER SWITCH
TO CD-175 BOARD CN100 (SEE PAGE 4-7)
⑤ TO(2/12)
① TO(3/12)
Ⓔ TO(11/12)
⑨ TO(10/12)
② TO(2/12)
④ TO(2/12)
③ TO(2/12)
⑥ TO(2/12)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
XX:NO MOUNT
•SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB

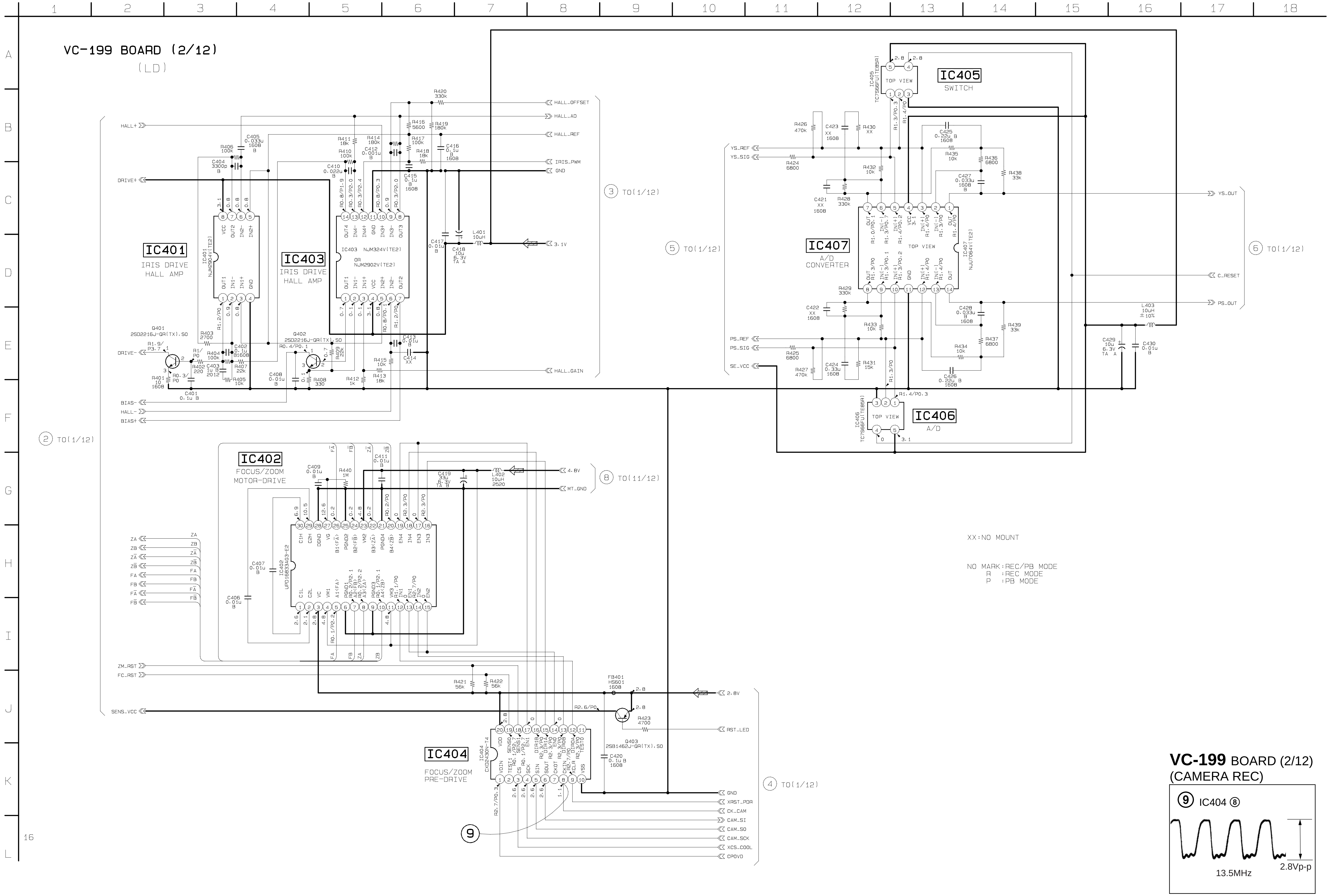
VC-199 BOARD (1/12)
(CAMERA REC)



VC-199 (LENS DRIVE) SCHEMATIC DIAGRAM

— Ref. No.: VC-199 board; 20,000 series —

- See page 4-12 for VC-199 BOARD printed wiring board.


VC-199 BOARD (2/12)
(LD)
IC401
IRIS DRIVE
HALL AMP
IC403
IRIS DRIVE
HALL AMP
IC402
FOCUS/ZOOM
MOTOR-DRIVE
IC404
FOCUS/ZOOM
PRE-DRIVE
IC405
SWITCH
IC406
A/D
IC407
A/D
CONVERTER
HALL+
DRIVE+
DRIVE-
BIAS-
HALL-
BIAS+
HALL_OFFSET
HALL_AD
HALL_REF
IRIS_PWM
GND
3.1V
HALL_GAIN
4.8V
MT_GND
2.8V
RST_LED
GND
XRST_POR
CK_CAM
CAM_SI
CAM_SO
CAM_SCK
XCS_COOL
CPOVD
YS_REF
YS_SIG
YS_OUT
C_RESET
PS_OUT
PS_REF
PS_SIG
SE_VCC
SENS_VCC
ZM_RST
FC_RST
② TO(1/12)
③ TO(1/12)
④ TO(1/12)
⑤ TO(1/12)
⑥ TO(1/12)
⑧ TO(11/12)
⑨
TOP VIEW
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
16

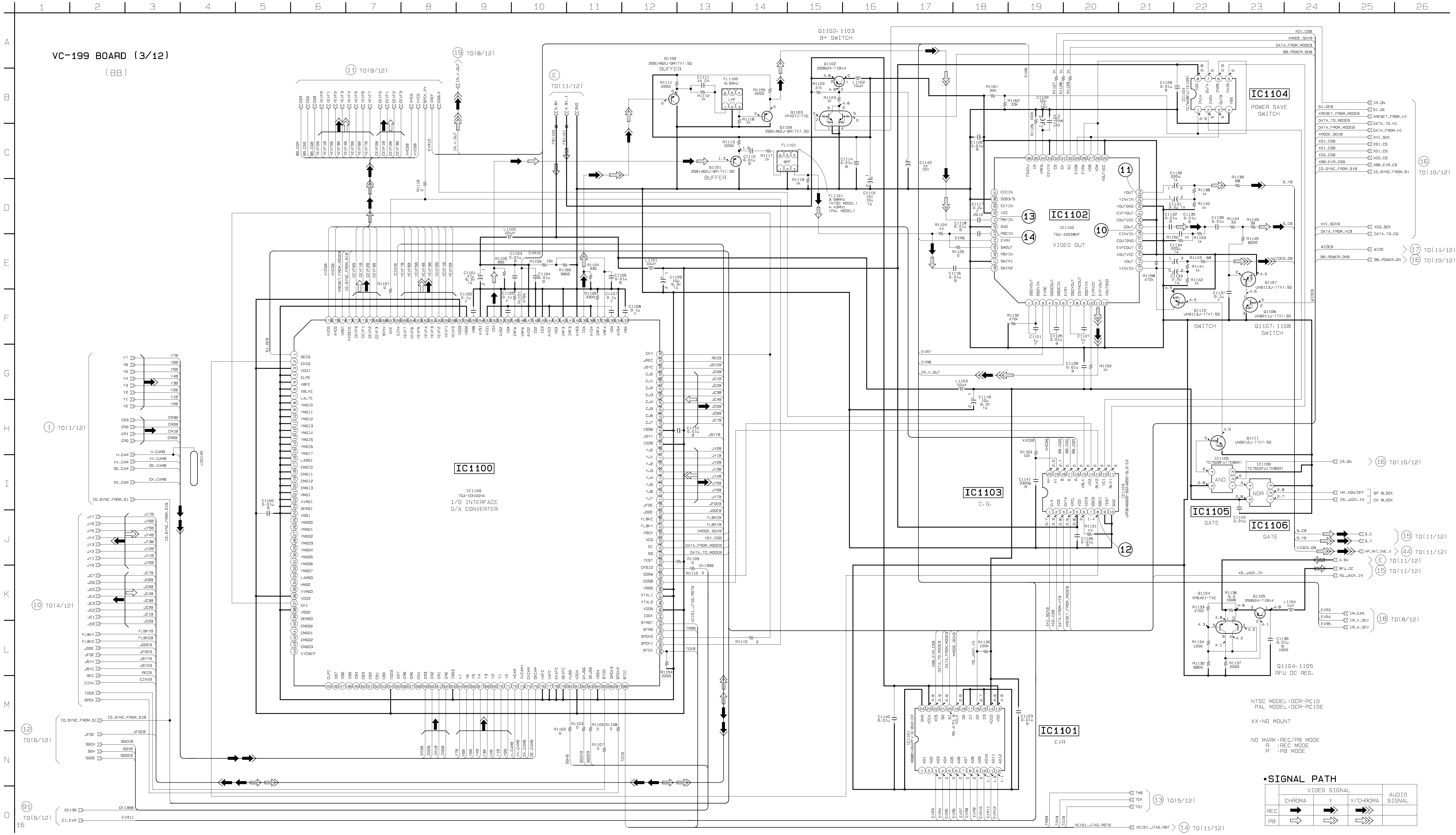
VC-199 BOARD (2/12)
(CAMERA REC)

⑨ IC404 ⑧
13.5MHz
2.8Vp-p

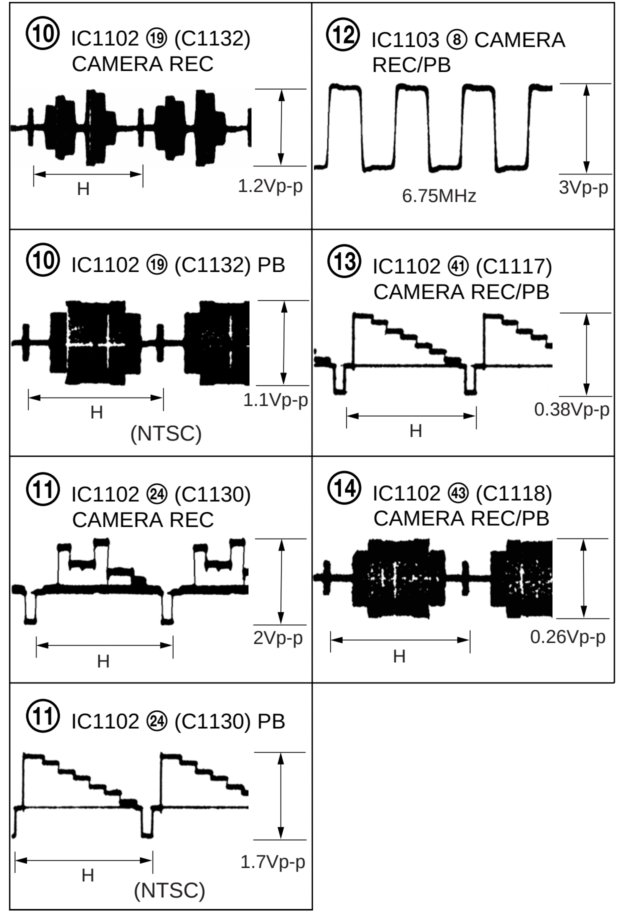
VC-199 (I/O) SCHEMATIC DIAGRAM

— Ref. No.: VC-199 board; 20,000 series —

- See page 4-12 for VC-199 BOARD printed wiring board.


VC-199 BOARD (3/12)
(BB)
IC1100
IC1100
TGA-D3100HA
I/O INTERFACE
D/A CONVERTER
IC1102
IC1102
TGA-A2008HF
VIDEO OUT
IC1103
C.G.
IC1104
POWER SAVE
SWITCH
IC1105
GATE
IC1106
GATE
IC1101
EVR
Q1100
2SB1462J-QR(TX).SO
BUFFER
Q1101
2SB1462J-QR(TX).SO
BUFFER
Q1102, 1103
B+ SWITCH
Q1107, 1108
SWITCH
Q1104, 1105
RFU DC REG.
FL1100
5.5MHz
FL1101
3.58MHz
(NTSC MODEL)
4.43MHz
(PAL MODEL)
TO (1/12)
TO (4/12)
TO (6/12)
TO (8/12)
TO (9/12)
TO (10/12)
TO (11/12)
TO (5/12)
NTSC MODEL:DCR-PC10
PAL MODEL:DCR-PC10E
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
•SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB

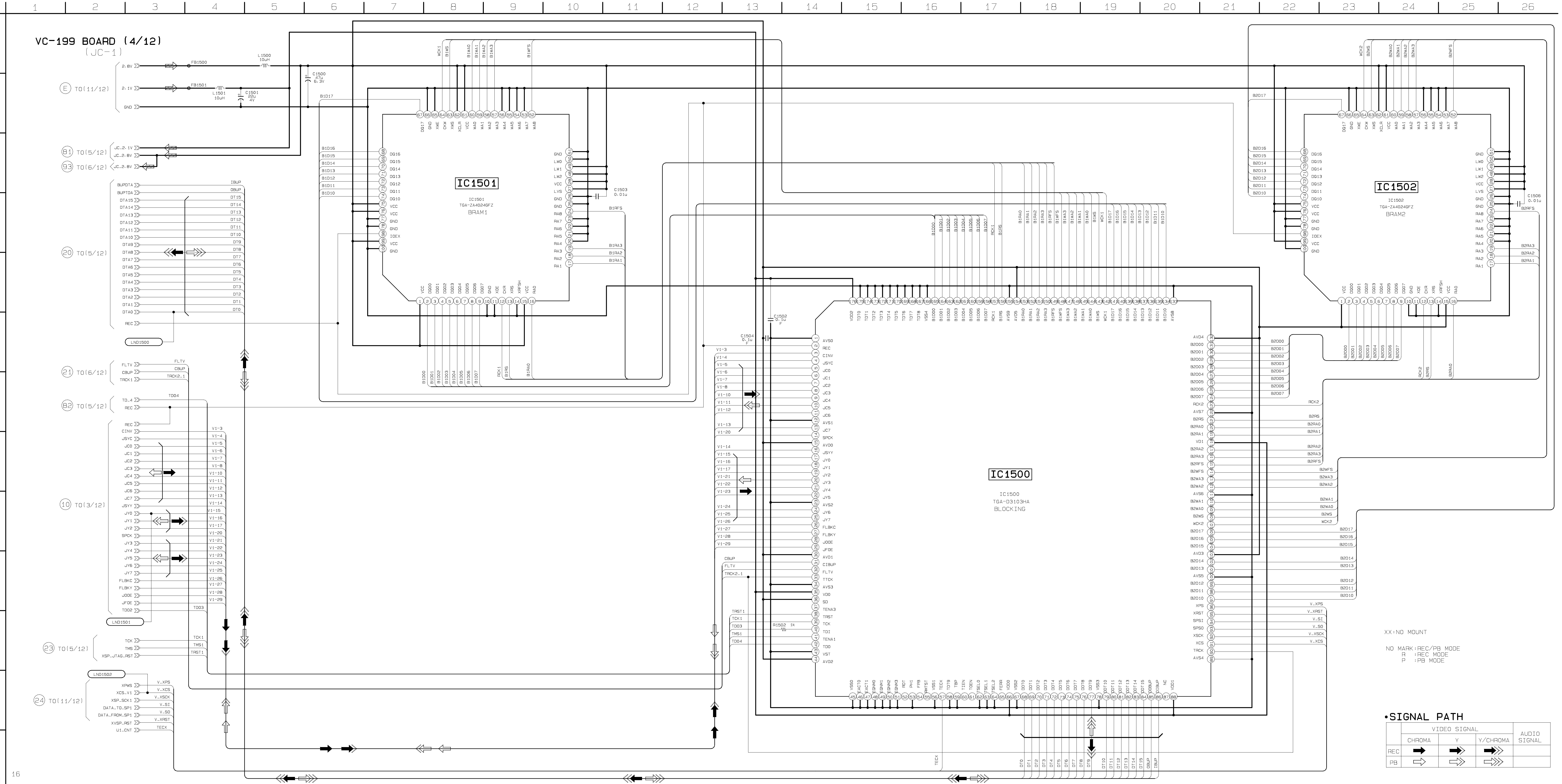
VC-199 BOARD (3/12)



VC-199 (BLOCKING) SCHEMATIC DIAGRAM

— Ref. No.: VC-199 board; 20,000 series —

- See page 4-12 for VC-199 BOARD printed wiring board.


VC-199 BOARD (4/12)
(JC-1)
TO(11/12)
TO(5/12)
TO(6/12)
TO(5/12)
TO(6/12)
TO(5/12)
TO(3/12)
TO(5/12)
TO(11/12)
FB1500
FB1501
L1500 10uH
L1501 10uH
C1500 47u 6.3V
C1501 22u 4V
C1502 0.1u F
C1503 0.01u
C1504 0.1u F
C1506 0.01u
R1502 1k
LND1500
LND1501
LND1502
IC1501
IC1501 TGA-ZA4024GFZ BRAM1
IC1502
IC1502 TGA-ZA4024GFZ BRAM2
IC1500
IC1500 TGA-D3103HA BLOCKING
2.8V
2.1V
GND
JC_2.1V
JC_2.8V
REC
FLTV
CBUP
TRCK2_1
TD_4
TCK
TMS
XSP_JTAG_RST
XPWS
XCS_V1
XSP_SCK1
DATA_TO_SP1
DATA_FROM_SP1
XVSP_RST
U1_CNT
V_XPS
V_XCS
V_XSCK
V_SI
V_SO
V_XRST
TECX
16

XX:NO MOUNT

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

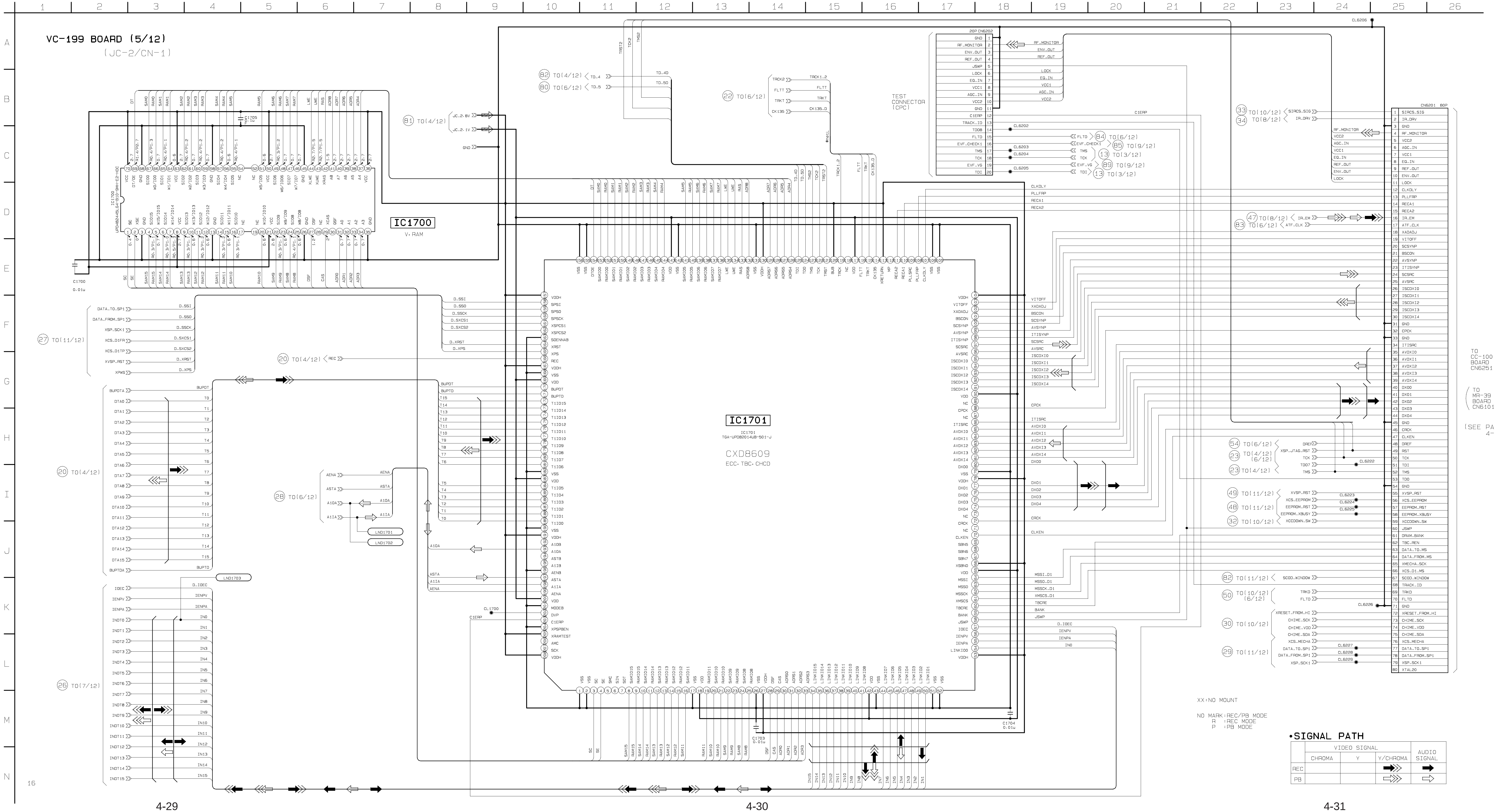
•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡	➡⟫	➡⟫⟫	
PB	⇨	⇨⟫	⇨⟫⟫	

VC-199 (ECC, TBC, CHCD) SCHEMATIC DIAGRAM

— Ref. No.: VC-199 board; 20,000 series —

• See page 4-12 for VC-199 BOARD printed wiring board.

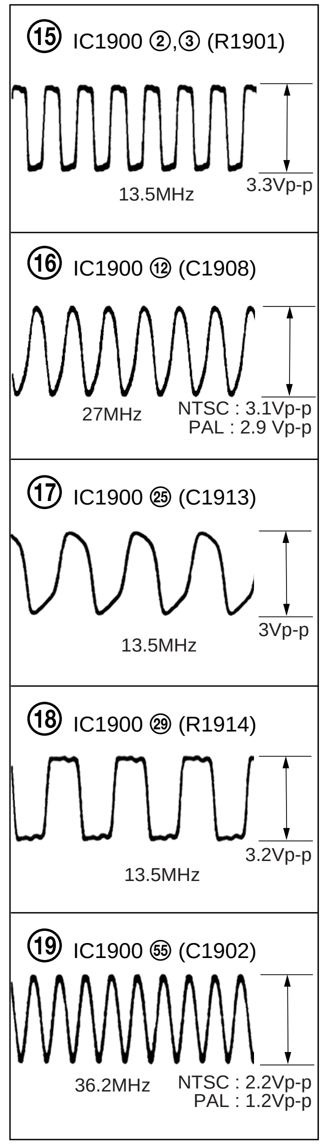

VC-199 BOARD (5/12)
(JC-2/CN-1)
IC1700
V. RAM
IC1701
TGA-UPD82014UB-501-J
CXD8609
ECC, TBC, CHCD
TEST CONNECTOR (CPC)
20P CN6202
CN6201 80P
TO CC-100 BOARD CN6251
(TO MR-39 BOARD CN6101)
[SEE PAGE 4-63]
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
•SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB

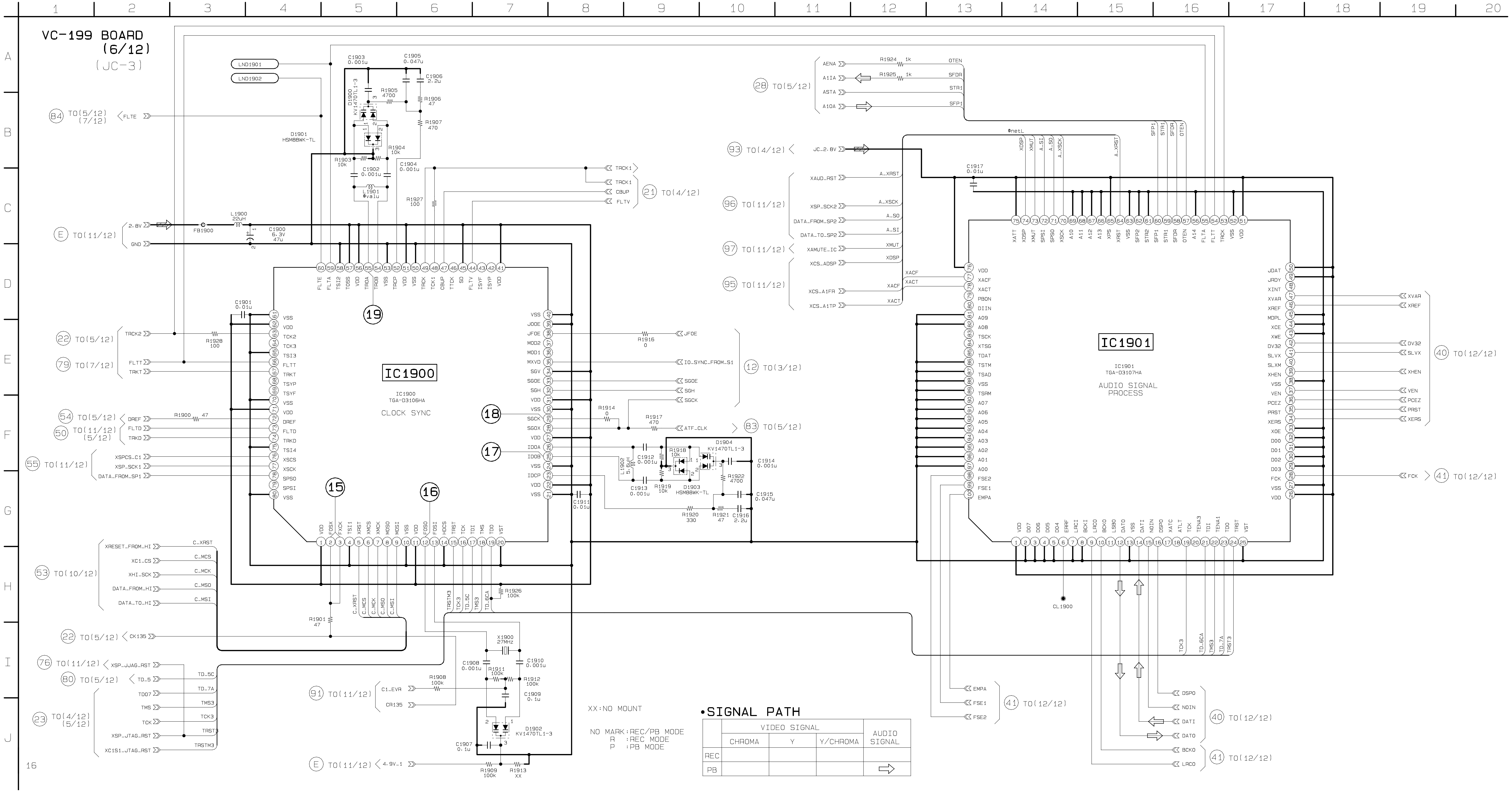
VC-199 (AUDIO SIGNAL PROCESS) SCHEMATIC DIAGRAM

— Ref. No.: VC-199 board; 20,000 series —

• See page 4-12 for VC-199 BOARD printed wiring board.

VC-199 BOARD (6/12)
(CAMERA REC/PB)




1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
A B C D E F G H I J
VC-199 BOARD
(6/12)
(JC-3)
IC1900
IC1900
TGA-D3106HA
CLOCK SYNC
IC1901
IC1901
TGA-D3107HA
AUDIO SIGNAL
PROCESS
LND1901
LND1902
C1903 0.001u
C1905 0.047u
C1906 2.2u
R1905 4700
R1906 47
R1907 470
D1900 KV1470TL1-3
D1901 HSM88WK-TL
R1903 10k
R1904 10k
C1902 0.001u
C1904 0.001u
L1901 ＃valu
R1927 100
L1900 22uH
C1900 6.3V 47u
FB1900
C1901 0.01u
R1928 100
R1900 47
R1916 0
R1914 0
R1917 470
R1918 10k
D1904 KV1470TL1-3
L1902 5.6uH
C1912 0.001u
C1913 0.001u
R1919 10k
D1903 HSM88WK-TL
C1914 0.001u
R1922 4700
C1915 0.047u
C1911 0.01u
R1920 330
R1921 47
C1916 2.2u
R1926 100k
R1901 47
X1900 27MHz
C1908 0.001u
C1910 0.001u
R1911 100k
R1912 100k
R1908 100k
C1909 0.1u
D1902 KV1470TL1-3
C1907 0.1u
R1909 100k
R1913 XX
C1917 0.01u
R1924 1k
R1925 1k
CL1900
84 TO(5/12) (7/12) FLTE
E TO(11/12) 2.8V GND
22 TO(5/12) TRCK2
79 TO(7/12) FLTT TRKT
54 TO(5/12) DREF
50 TO(11/12) (5/12) FLTD TRKD
55 TO(11/12) XSPCS_C1 XSP_SCK1 DATA_FROM_SP1
53 TO(10/12) XRESET_FROM_HI XC1_CS XHI_SCK DATA_FROM_HI DATA_TO_HI
C_XRST C_MCS C_MCK C_MSO C_MSI
22 TO(5/12) CK135
76 TO(11/12) XSP_JJAG_RST
80 TO(5/12) TD_5
23 TO(4/12) (5/12) TD07 TMS TCK XSP_JTAG_RST XC1S1_JTAG_RST
TD_5C TD_7A TMS3 TCK3 TRST3 TRSTM3
91 TO(11/12) C1_EVR CR135
E TO(11/12) 4.9V_1
21 TO(4/12) TRCK1 TRCK1 CBUP FLTV
12 TO(3/12) JFOE IO_SYNC_FROM_S1 SGOE SGH SGCK
83 TO(5/12) ATF_CLK
28 TO(5/12) AENA A1IA ASTA A1OA OTEN SFDR STR1 SFP1
93 TO(4/12) JC_2.8V
96 TO(11/12) XAUD_RST XSP_SCK2 DATA_FROM_SP2 DATA_TO_SP2 A_XRST A_XSCK A_SO A_SI
97 TO(11/12) XAMUTE_IC XMUT XDSP
95 TO(11/12) XCS_ADSP XCS_A1FR XCS_A1TP XACF XACT
40 TO(12/12) XVAR XREF DV32 SLVX XHEN VEN PCEZ PRST XERS
41 TO(12/12) FCK
41 TO(12/12) EMPA FSE1 FSE2
40 TO(12/12) DSPO NOIN DATI DATO
41 TO(12/12) BCKO LRCO
TCK3 TD_6CA TMS3 TD_7A TRST3
15 16 17 18 19
16

XX:NO MOUNT

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

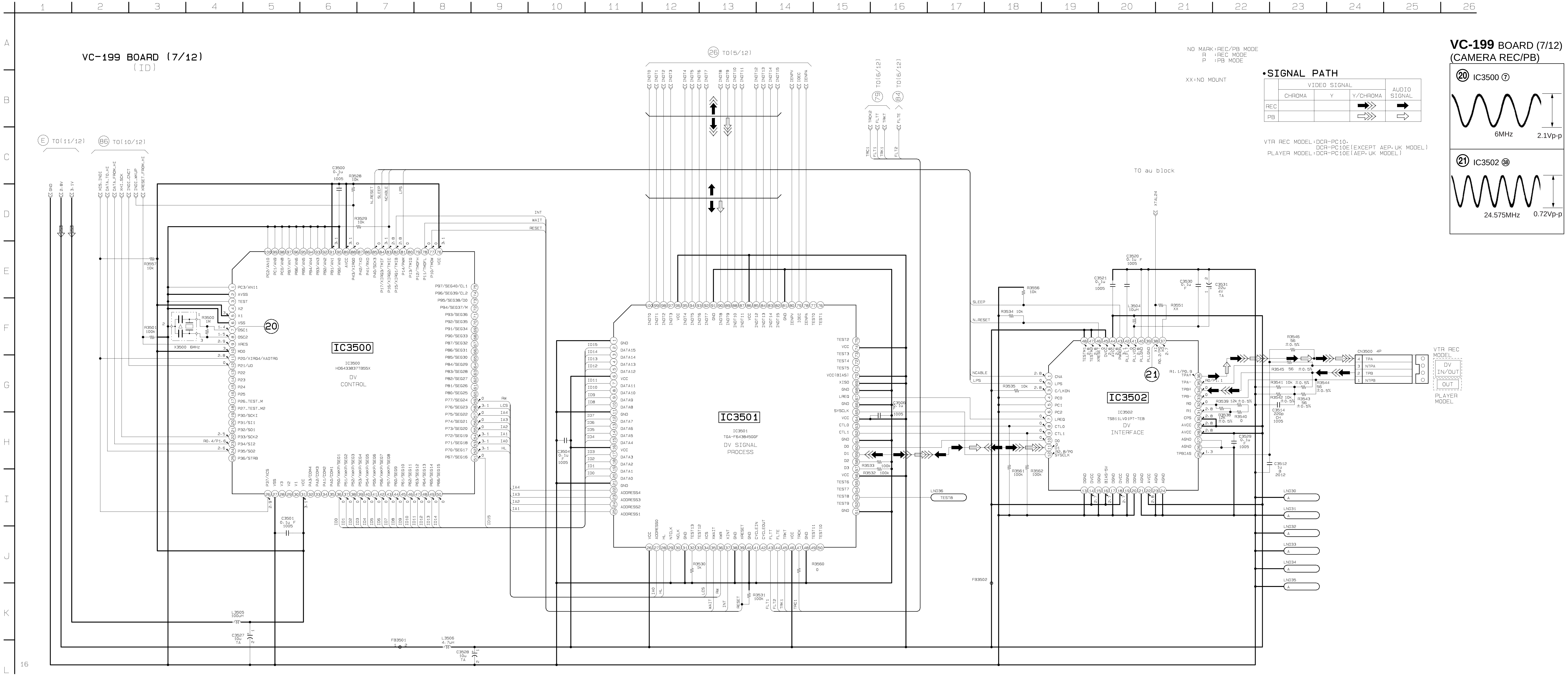
•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				
PB				⇨

VC-199 (DV I/O) SCHEMATIC DIAGRAM

— Ref. No.: VC-199 board; 20,000 series —

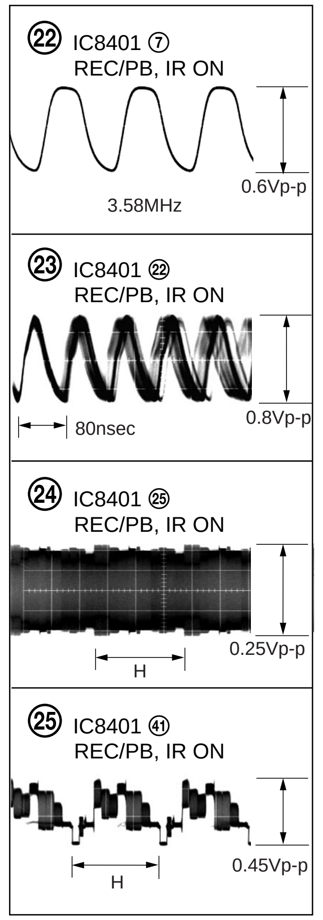
- See page 4-12 for VC-199 BOARD printed wiring board.

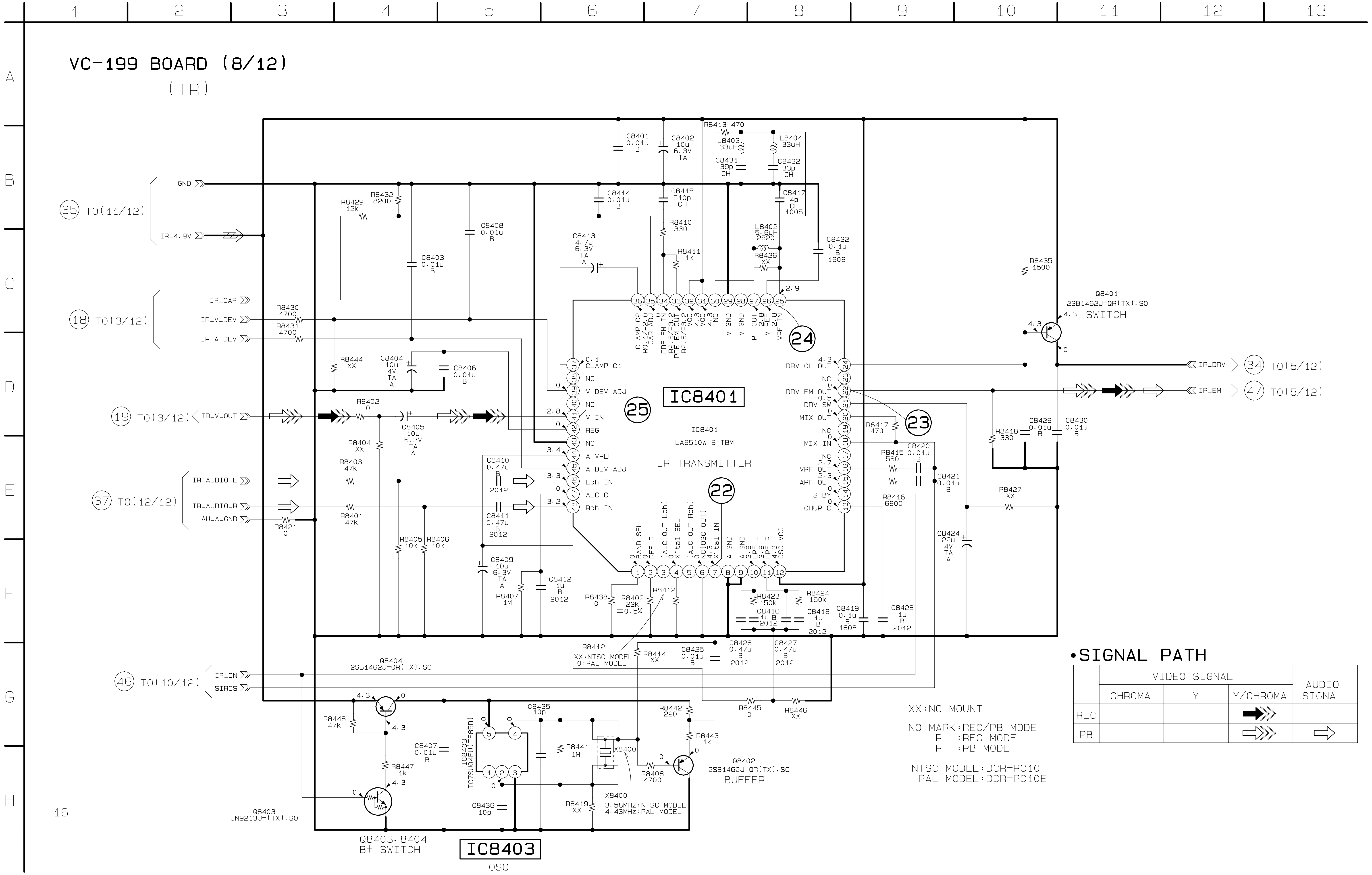

VC-199 BOARD (7/12)
(ID)
E TO(11/12)
86 TO(10/12)
26 TO(5/12)
79 TO(6/12)
84 TO(6/12)
TO au block
IC3500
IC3500
HD6433837TB55X
DV
CONTROL
⑳
IC3501
IC3501
TGA-F643845GGF
DV SIGNAL
PROCESS
IC3502
IC3502
TSB11LV01PT-TEB
DV
INTERFACE
㉑
X3500 6MHz
CN3500 4P
VTR REC MODEL
DV IN/OUT
OUT
PLAYER MODEL
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
XX:NO MOUNT
•SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB
VTR REC MODEL:DCR-PC10,
DCR-PC10E(EXCEPT AEP,UK MODEL)
PLAYER MODEL:DCR-PC10E(AEP,UK MODEL)
VC-199 BOARD (7/12)
(CAMERA REC/PB)
⑳ IC3500 ⑦
6MHz
2.1Vp-p
㉑ IC3502 ㊳
24.575MHz
0.72Vp-p
16

VC-199 (IR TRANSMITTER) SCHEMATIC DIAGRAM
— Ref. No.: VC-199 board; 20,000 series —

• See page 4-12 for VC-199 BOARD printed wiring board.

VC-199 BOARD (8/12)
(CAMERA REC/PB)





1
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12
13
A
B
C
D
E
F
G
H
VC-199 BOARD (8/12)
(IR)
㉟ TO(11/12)
GND
IR_4.9V
⑱ TO(3/12)
IR_CAR
IR_V_DEV
IR_A_DEV
⑲ TO(3/12)
IR_V_OUT
㊲ TO(12/12)
IR_AUDIO_L
IR_AUDIO_R
AU_A_GND
㊻ TO(10/12)
IR_ON
SIRCS
R8429 12k
R8432 8200
R8430 4700
R8431 4700
R8444 XX
R8402 0
R8404 XX
R8403 47k
R8401 47k
R8421 0
C8408 0.01u B
C8403 0.01u B
C8404 10u 4V TA A
C8406 0.01u B
C8405 10u 6.3V TA A
C8410 0.47u B 2012
C8411 0.47u B 2012
R8405 10k
R8406 10k
C8409 10u 6.3V TA A
R8407 1M
C8412 1u B 2012
C8401 0.01u B
C8402 10u 6.3V TA
R8413 470
L8403 33uH
L8404 33uH
C8431 39p CH
C8432 33p CH
C8414 0.01u B
C8415 510p CH
C8417 4p CH 1005
R8410 330
R8411 1k
C8413 4.7u 6.3V TA A
L8402 5.6uH 2520
R8426 XX
C8422 0.1u B 1608
R8435 1500
Q8401 2SB1462J-QR(TX).SO SWITCH
4.3
0
2.9
CLAMP C2
R0.1/P2.0 CAR ADJ
0 PRE EM IN
R2.6/P3.2 PRE EM OUT
R2.6/P3.2 VCC
4.3 VCC
4.3 NC
V GND
V GND
HPF OUT
2.8 V REF
2.8 VRF IN
㉔
0.1 CLAMP C1
NC
0 V DEV ADJ
NC
2.8 V IN
0 REG
NC
3.4 A VREF
A DEV ADJ
3.3 Lch IN
0 ALC C
3.2 Rch IN
㉕
IC8401
IC8401
LA9510W-B-TBM
IR TRANSMITTER
㉒
4.3 DRV CL OUT
NC
0 DRV EM OUT
0.5 DRV SW
0 MIX OUT
NC
0 MIX IN
NC
2.7 VRF OUT
2.3 ARF OUT
0 STBY
0 CHUP C
㉓
0 BAND SEL
0 REF R
[ALC OUT Lch]
0 X'tal SEL
[ALC OUT Rch]
0 NC[OSC OUT]
4.3 X'tal IN
A GND
A GND
2.9 LPF L
2.9 LPF R
4.3 OSC VCC
R8417 470
R8415 560
C8420 0.01u B
C8421 0.01u B
R8416 6800
R8418 330
C8429 0.01u B
C8430 0.01u B
R8427 XX
C8424 22u 4V TA A
IR_DRV
㉞ TO(5/12)
IR_EM
㊼ TO(5/12)
R8438 0
R8409 22k ±0.5%
R8412
R8423 150k
R8424 150k
C8416 1u B 2012
C8418 1u B 2012
C8419 0.1u B 1608
C8428 1u B 2012
R8412
XX:NTSC MODEL
0:PAL MODEL
R8414 XX
C8425 0.01u B
C8426 0.47u B 2012
C8427 0.47u B 2012
Q8404 2SB1462J-QR(TX).SO
R8448 47k
R8447 1k
C8407 0.01u B
IC8403 TC7SU04FU(TE85R)
C8435 10p
C8436 10p
R8441 1M
X8400
R8419 XX
X8400
3.58MHz:NTSC MODEL
4.43MHz:PAL MODEL
R8442 220
R8443 1k
R8408 4700
R8445 0
R8446 XX
Q8402 2SB1462J-QR(TX).SO
BUFFER
Q8403 UN9213J-(TX).SO
Q8403, 8404
B+ SWITCH
IC8403
OSC
16

XX:NO MOUNT

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

NTSC MODEL:DCR-PC10
PAL MODEL:DCR-PC10E

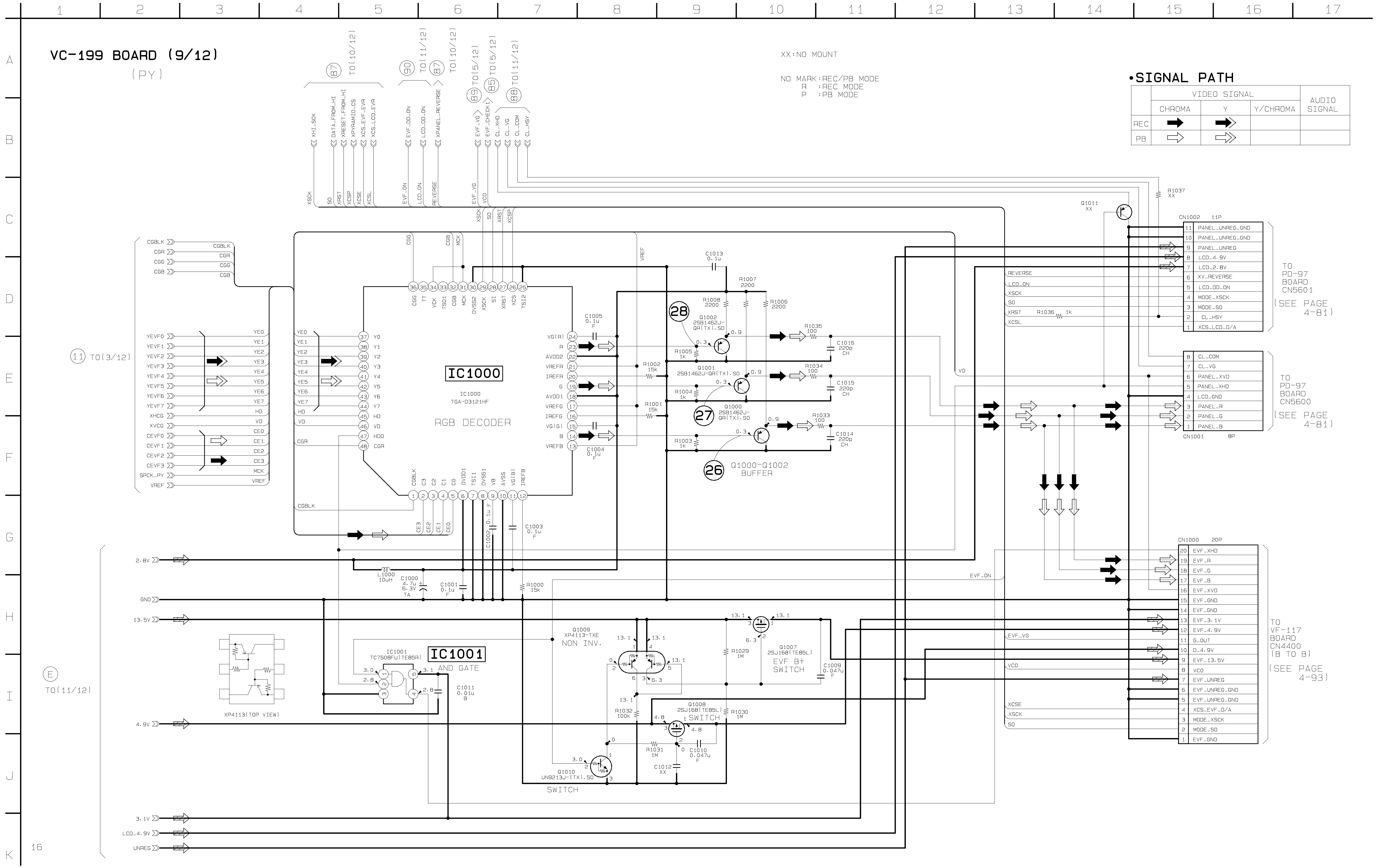
•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			➡⟫	
PB			⇨⟫	⇨

IR TRANSMITTER
VC-199 (8/12)

VC-199 (RGB DECODER) SCHEMATIC DIAGRAM
— Ref. No.: VC-199 board; 20,000 series —

• See page 4-12 for VC-199 BOARD printed wiring board.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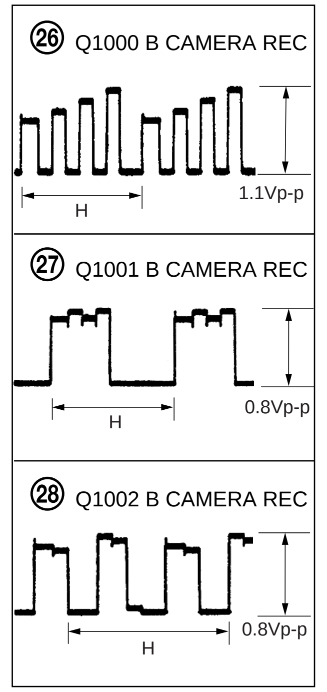
D
E
F
G
H
I
J
K
16
VC-199 BOARD (9/12)
(PY)
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
•SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB
87
TO(10/12)
90
TO(11/12)
87
TO(10/12)
89
TO(5/12)
85
TO(5/12)
88
TO(11/12)
XHI_SCK
DATA_FROM_HI
XRESET_FROM_HI
XPYRAMID_CS
XCS_EVF_EVR
XCS_LCD_EVR
EVF_DD_ON
LCD_DD_ON
XPANEL_REVERSE
EVF_VG
EVF_CHECK1
CL_XHD
CL_VG
CL_COM
CL_HSY
XSCK
SO
XRST
XCSP
XCSE
XCSL
EVF_ON
LCD_ON
REVERSE
VCO
11 TO(3/12)
CGBLK
CGR
CGG
CGB
YEVF0
YEVF1
YEVF2
YEVF3
YEVF4
YEVF5
YEVF6
YEVF7
XHCG
XVCG
CEVF0
CEVF1
CEVF2
CEVF3
SPCK_PY
VREF
YE0
YE1
YE2
YE3
YE4
YE5
YE6
YE7
HD
VD
CE0
CE1
CE2
CE3
MCK
IC1000
IC1000
TGA-D3121HF
RGB DECODER
CGG
TT
VCK
TSO1
CGB
MCK
DVSS2
XSCK
SI
XRST
XCS
TSI2
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7
HD
VD
HDO
CGR
CGBLK
C3
C2
C1
C0
DVDD1
TSI1
DVSS1
VB
AVSS
VG(B)
IREFB
VG(R)
R
AVDD2
VREFR
IREFR
G
AVDD1
VREFG
IREFG
VG(G)
B
VREFB
C1005
0.1u
F
C1004
0.1u
F
C1003
0.1u
F
C1002
0.1u F
R1002
15k
R1001
15k
C1013
0.1u
R1007
2200
R1008
2200
R1006
2200
28
Q1002
2SB1462J-
QR(TX).SO
R1005
1k
Q1001
2SB1462J-QR(TX).SO
R1004
1k
27
Q1000
2SB1462J-
QR(TX).SO
R1003
1k
26
Q1000-Q1002
BUFFER
0.3
0.9
R1035
100
R1034
100
R1033
100
C1016
220p
CH
C1015
220p
CH
C1014
220p
CH
Q1011
XX
R1037
XX
R1036
1k
CN1002 11P
11 PANEL_UNREG_GND
10 PANEL_UNREG_GND
9 PANEL_UNREG
8 LCD_4.9V
7 LCD_2.8V
6 XV_REVERSE
5 LCD_DD_ON
4 MODE_XSCK
3 MODE_SO
2 CL_HSY
1 XCS_LCD_D/A
TO
PD-97
BOARD
CN5601
(SEE PAGE
4-81)
8 CL_COM
7 CL_VG
6 PANEL_XVD
5 PANEL_XHD
4 LCD_GND
3 PANEL_R
2 PANEL_G
1 PANEL_B
CN1001 8P
TO
PD-97
BOARD
CN5600
(SEE PAGE
4-81)
CN1000 20P
20 EVF_XHD
19 EVF_R
18 EVF_G
17 EVF_B
16 EVF_XVD
15 EVF_GND
14 EVF_GND
13 EVF_3.1V
12 EVF_4.9V
11 G_OUT
10 D_4.9V
9 EVF_13.5V
8 VCO
7 EVF_UNREG
6 EVF_UNREG_GND
5 EVF_UNREG_GND
4 XCS_EVF_D/A
3 MODE_XSCK
2 MODE_SO
1 EVF_GND
TO
VF-117
BOARD
CN4400
(B TO B)
(SEE PAGE
4-93)
2.8V
GND
13.5V
4.9V
3.1V
LCD_4.9V
UNREG
E
TO(11/12)
L1000
10uH
C1000
4.7u
6.3V
TA
C1001
0.1u
F
R1000
15k
IC1001
TC7S08FU(TE85R)
IC1001
AND GATE
3.0
2.8
3.1
C1011
0.01u
B
XP4113(TOP VIEW)
Q1009
XP4113-TXE
NON INV.
13.1
6.3
Q1007
2SJ168(TE85L)
EVF B+
SWITCH
R1029
1M
C1009
0.047u
F
Q1008
2SJ168(TE85L)
SWITCH
4.8
R1030
1M
R1032
100k
R1031
1M
C1010
0.047u
F
C1012
XX
Q1010
UN9213J-(TX).SO
SWITCH
0
3.0

VC-199 BOARD (9/12)

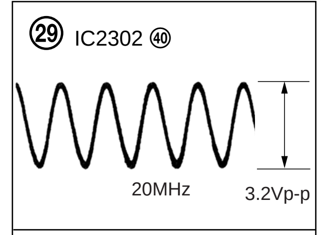


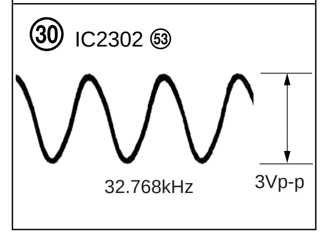
VC-199 (MODE CONTROL), FK-4850, ME-4850 (FUNCTION SWITCH BLOCK) SCHEMATIC DIAGRAM

— Ref. No.: VC-199 board; 20,000 series —

- See page 4-12 for VC-199 BOARD printed wiring board.

VC-199 BOARD (10/12)



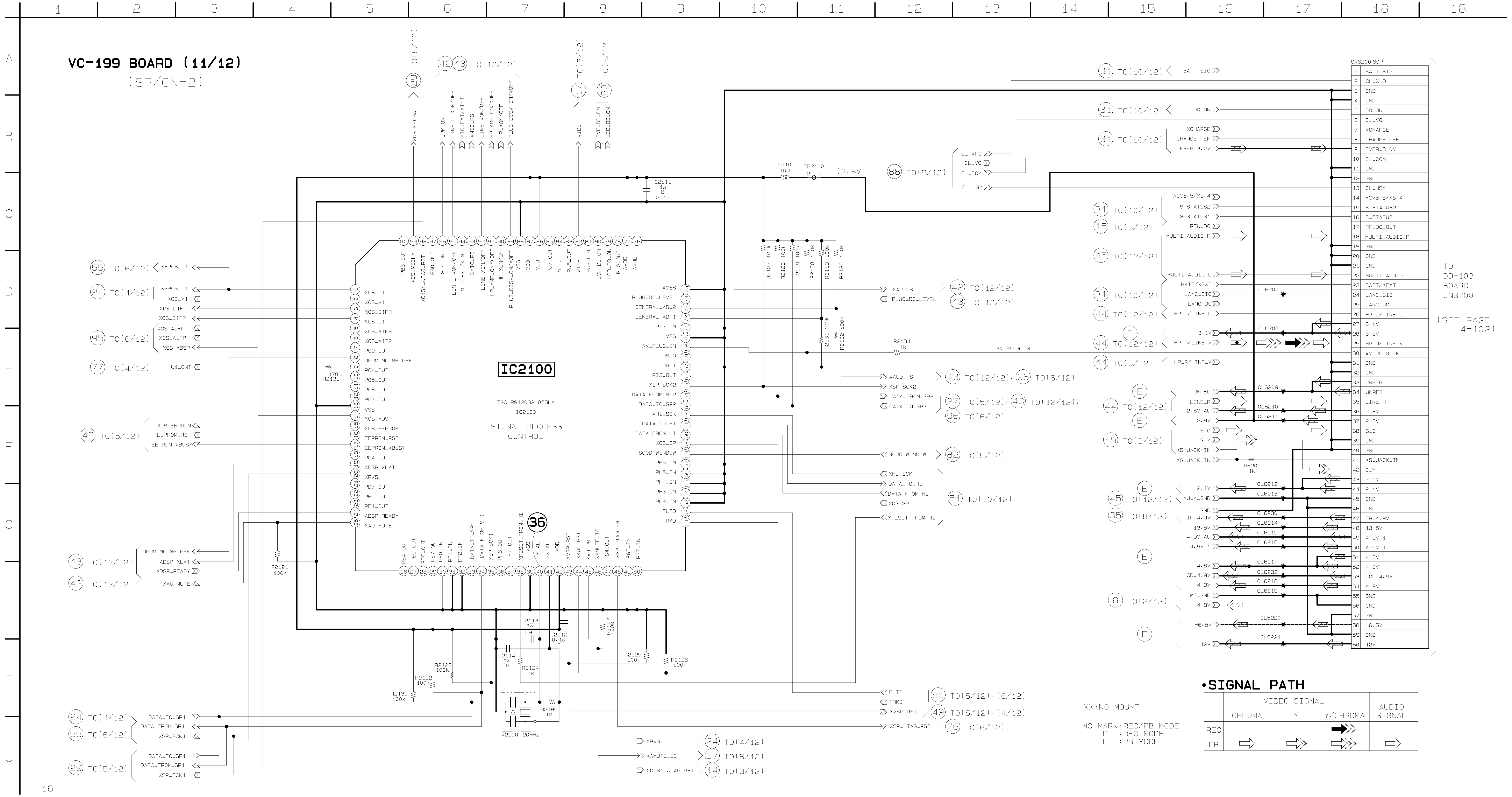


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36
A B C D E F G H I J K L M
FUNCTION SWITCH BLOCK (FK-4850)
VTR REC MODEL:DCR-PC10, DCR-PC10E(EXCEPT AEP,UK MODEL)
PLAYER MODEL:DCR-PC10E(AEP,UK MODEL)
ZOOM
FOCUS
INFINITY
OPEN/EJECT
PET
(START/STOP)
CONTROL DIAL
START/STOP MODE
5sec
VTR
PLAYER
OFF
CAMERA
PHOTO
POWER
PLAYER MODEL
VTR REC MODEL
BRIGHT
STOP
REW
PLAY
FF
PAUSE
FEDER
RESET
(LASER AV LINK)
LASER AV LINK
(BATT CHARGE)
CN1 30P
CN2 4P
CN2300 30P
CN2301 9P
VC-199 BOARD (10/12)
(HI)
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
XX:NO MOUNT
NTSC MODEL:DCR-PC10
PAL MODEL:DCR-PC10E
(PANEL OPEN) SWITCH
LED DRIVER
IC2300
VOL BAT
IC2301
BATT/L1 SWITCH RESET
IC2302
S5701EP2-TE8:NTSC MODEL
S5701EP2-TE8:PAL MODEL
MODE CONTROL
IC2305
LANC I/O
IC2304
EEPROM
SWITCH
INV.
㉙
㉚
MENU
TITL
VOL+
VOL-
DISPLAY
LCD BRIGHT+
LCD BRIGHT-
EDIT SEARCH+
EDIT SEARCH-
END SEARCH
FUNCTION SWITCH BLOCK (ME-4850)
(51) TO(11/12)
⑨ TO(1/12)
(86) TO(7/12)
(87) TO(9/12)
(53) TO(6/12)
⑮ TO(3/12)
(46) TO(8/12)
㉚ TO(5/12)
㉝ TO(5/12)
(52) TO(12/12)
Ⓔ TO(11/12)
㉛ TO(11/12)
㉜ TO(5/12)
㉛ TO(11/12)

Note: The control switch blocks (FK-4850, ME-4850) are not shown in this manual because they are replaced as a block for service.

VC-199 (AUDIO CONTROL) SCHEMATIC DIAGRAM
— Ref. No.: VC-199 board; 20,000 series —

• See page 4-12 for VC-199 BOARD printed wiring board.


VC-199 BOARD (11/12)
(SP/CN-2)
IC2100
TGA-P912032-055HA
IC2100
SIGNAL PROCESS CONTROL
CN6200 60P
TO DD-103 BOARD CN3700
(SEE PAGE 4-102)
X2100 20MHz
(2.8V)

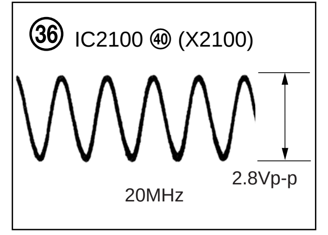
XX:NO MOUNT

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			➡	
PB	⇨	⇨	⇨	⇨

VC-199 BOARD (11/12)

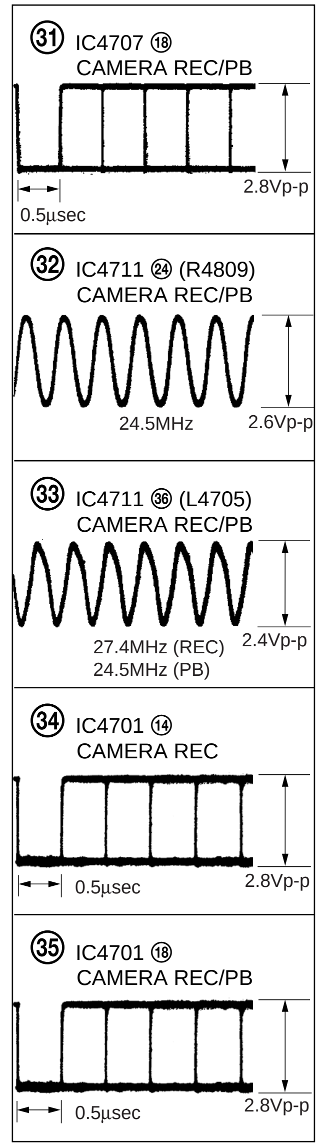


VC-199 (AUDIO) SCHEMATIC DIAGRAM

— Ref. No.: VC-199 board; 20,000 series —

• See page 4-12 for VC-199 BOARDprinted wiring board.

VC-199 BOARD (12/12)



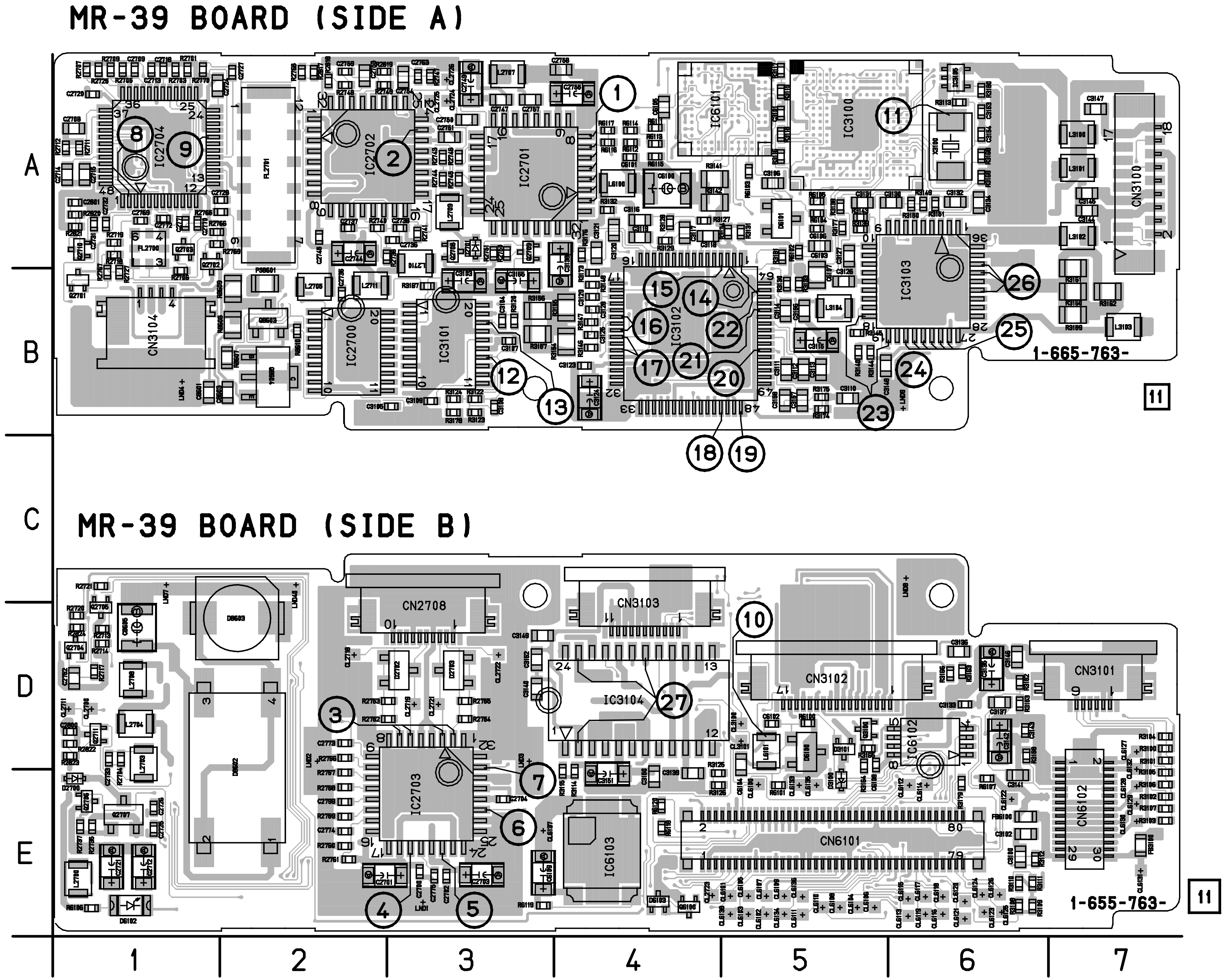
VC-199 BOARD (12/12)
(AU)
IC4700
AU AGC
IC4717
LINE AMP
IC4718
LINE AMP
IC4701
AU A/D-D/A CONVERTER
IC4704
LINE AMP
IC4705
LINE/HP SELECT
IC4709
INT MIC AMP
IC4703
INT/EXT SELECT
IC4716
SWITCH
IC4714
SP AMP
IC4715
SWITCH
IC4707
AU A/D-D/A CONVERTER
IC4706
AMP/LPF
IC4710
AU AGC
IC4711
AU PLL
IC4712
VCO
Q4701-4703
INITIAL MUTE
Q4722, 4723
B+ SWITCH
Q4704
MUTE
Q4712-4719
LINE/HP SWITCH
Q4710, 4714
B+ SWITCH (HP AMP)
BUFFER (PLUG SW)
MIC
SP
TO(11/12)
TO(5/12)
TO(8/12)
TO(6/12)
TO(10/12)
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
•SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB

MR-39 BOARD

C2700	E-3	C3123	B-4	FB3100	E-7	R2719	A-1	R3130	B-5
C2701	E-2	C3124	B-4	FB6100	E-6	R2720	D-1	R3131	A-5
C2702	E-3	C3125	B-4	FB6101	A-4	R2721	C-1	R3132	A-4
C2703	E-3	C3126	B-5			R2727	B-1	R3133	B-5
C2704	E-3	C3127	A-5	FL2700	A-1	R2735	E-1	R3134	A-5
C2708	A-1	C3128	B-4	FL2701	A-2	R2737	E-1	R3138	A-5
C2709	A-1	C3129	B-4			R2738	A-2	R3139	A-5
C2712	E-1	C3130	A-6	IC2700	B-2	R2740	A-2	R3140	B-5
C2713	A-1	C3131	A-5	IC2701	A-3	R2741	A-3	R3141	A-4
C2714	A-1	C3132	A-6	IC2702	A-2	R2743	A-3	R3142	A-4
C2715	A-1	C3133	D-6	IC2703	E-3	R2744	A-3	R3143	A-5
C2718	A-1	C3134	A-6	IC2704	A-1	R2747	A-3	R3144	B-5
C2720	A-1	C3135	D-6	IC3100	A-5	R2748	A-2	R3145	B-5
C2721	E-1	C3136	D-6	IC3101	B-3	R2749	A-2	R3146	B-4
C2724	A-1	C3137	D-6	IC3102	B-4	R2750	A-3	R3147	B-4
C2725	E-1	C3138	B-4	IC3103	B-6	R2751	A-3	R3148	B-4
C2726	E-1	C3139	E-4	IC3104	D-4	R2752	D-2	R3149	A-6
C2727	A-2	C3140	D-3	IC6101	A-5	R2753	D-3	R3150	A-6
C2728	A-2	C3141	E-6	IC6102	D-6	R2754	D-3	R3151	A-6
C2731	A-1	C3142	D-6	IC6103	E-4	R2755	D-3	R3152	D-6
C2732	A-1	C3143	D-6			R2756	D-2	R3153	D-6
C2733	D-1	C3144	A-7	L2700	E-1	R2757	E-2	R3154	B-3
C2735	B-2	C3145	A-7	L2703	D-1	R2758	E-2	R3155	B-3
C2736	A-3	C3146	D-6	L2704	D-1	R2759	E-2	R3156	B-3
C2737	A-2	C3147	A-7	L2705	B-2	R2760	E-2	R3157	B-3
C2738	A-3	C3148	B-5	L2707	A-3	R2761	E-2	R3158	D-6
C2744	A-2	C3149	D-3	L2708	D-1	R2765	A-2	R3159	B-7
C2745	A-2	C3150	E-4	L2709	A-3	R2766	A-1	R3160	B-7
C2747	A-3	C3151	E-4	L2710	A-3	R2767	B-1	R3161	B-7
C2749	A-3	C3152	D-3	L2711	B-2	R2768	A-2	R3162	B-7
C2750	A-3	C3153	A-6	L3100	A-7	R2769	A-1	R3163	D-6
C2751	A-3	C3154	A-6	L3101	A-7	R2770	A-1	R3164	E-5
C2752	D-1	C3155	B-3	L3102	A-7	R2817	A-2	R3165	D-5
C2753	A-2	C3157	B-5	L3103	B-7	R2818	A-2	R3166	D-6
C2754	A-3	C3158	B-5	L3104	B-5	R2819	A-2	R3167	B-3
C2755	A-4	C6100	A-4	L6100	A-4	R2820	A-1	R3168	A-6
C2757	A-3	C6101	A-4	L6101	D-5	R2821	A-1	R3169	A-6
C2758	A-4	C6102	D-5			R2822	D-1	R3173	B-4
C2759	A-2	C6103	A-5	PS8601	B-2	R2823	D-1	R3174	B-5
C2763	A-3	C6104	E-5			R2824	D-1	R3175	B-5
C2769	A-1	C6105	A-4	Q2701	B-1	R3100	D-7	R3176	A-4
C2770	A-1	C6106	A-5	Q2702	B-1	R3101	D-7	R3177	A-5
C2771	A-1	C6107	B-5	Q2703	A-1	R3102	D-7	R3178	B-3
C2772	A-1	C6108	E-5	Q2704	D-1	R3103	D-7	R3181	A-5
C2773	D-2	C8601	B-1	Q2705	D-1	R3104	D-7	R6100	D-5
C2774	E-2	C8603	B-2	Q2706	E-1	R3105	D-7	R6101	E-5
C2799	E-2	C8605	D-1	Q2707	E-1	R3106	D-7	R6102	A-5
C3100	E-6			Q2708	A-3	R3107	D-7	R6103	A-5
C3101	A-5	CN2708	D-3	Q2709	A-3	R3108	E-6	R6104	A-5
C3102	E-6	CN3100	A-7	Q2710	A-1	R3109	E-6	R6105	A-5
C3103	B-3	CN3101	D-7	Q2711	D-1	R3110	E-6	R6106	E-1
C3104	B-3	CN3102	D-5	Q3100	D-5	R3111	E-6	R6107	E-6
C3105	B-3	CN3103	D-4	Q6100	E-4	R3112	E-6	R6111	A-4
C3106	A-5	CN3104	B-1	Q8603	B-2	R3113	A-6	R6112	A-4
C3107	B-3	CN6101	E-5	Q8604	B-2	R3114	E-4	R6113	A-4
C3108	B-3	CN6102	E-7			R3115	E-4	R6114	A-4
C3109	B-3			R2701	A-1	R3116	A-5	R6115	A-4
C3110	B-5	D2700	E-1	R2703	A-1	R3117	A-5	R6116	A-4
C3111	B-5	D2701	A-3	R2704	D-1	R3118	A-5	R6117	A-4
C3112	B-5	D2702	D-3	R2705	A-1	R3119	A-5	R6118	E-4
C3113	B-5	D2703	D-3	R2706	B-1	R3120	B-3	R6119	E-3
C3114	B-5	D3100	E-5	R2707	A-1	R3122	B-3	R6120	E-4
C3115	B-5	D3101	D-5	R2709	A-1	R3123	B-3	R8607	B-2
C3116	A-4	D6100	D-5	R2711	A-1	R3124	B-3	R8608	B-2
C3117	A-4	D6101	A-5	R2712	A-1	R3125	E-4	R8609	B-2
C3118	A-4	D6102	E-1	R2713	D-1	R3126	E-4	R8610	B-2
C3119	A-4	D6103	E-4	R2714	D-1	R3127	A-4		
C3120	A-4	D8602	E-2	R2717	D-1	R3128	A-4	X3100	A-6
C3121	A-4	D8603	D-2	R2718	A-1	R3129	A-4		

MR-39 (REC/PB AMP, SERVO) PRINTED WIRING BOARD -11
— Ref. No.: MR-39 board; 10,000 series —

- See page 4-60 for the printed wiring board part number suffix -12.
- See page 4-63 for MR-39 BOARD schematic diagram.


MR-39 BOARD (SIDE A)
MR-39 BOARD (SIDE B)
A
B
C
D
E
1
2
3
4
5
6
7
IC2704
IC2702
IC2701
IC6101
IC3100
IC3103
IC3102
IC3101
IC2700
CN3104
CN3100
CN2708
CN3103
CN3102
CN3101
IC3104
IC2703
IC6103
IC6102
CN6101
CN6102
1-665-763-
1-655-763-
11
①
②
③
④
⑤
⑥
⑦
⑧
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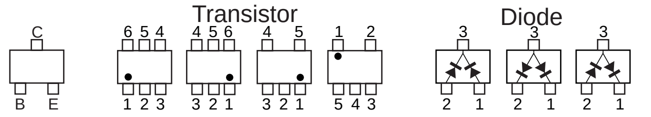
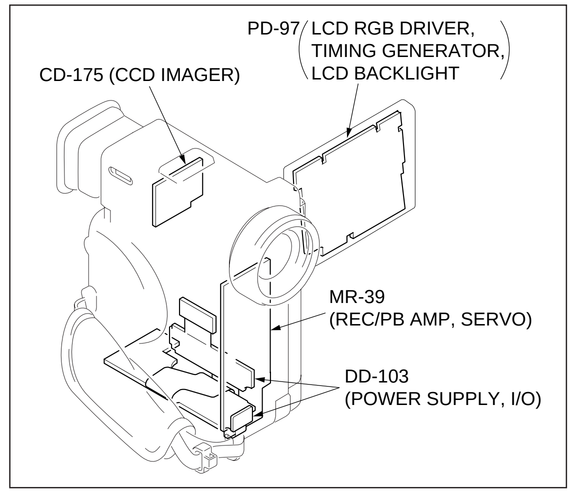
• Chip parts.


Transistor
Diode
C
B
E
6 5 4
1 2 3
4 5 6
3 2 1
4 5
3 2 1
1 2
5 4 3
3
2 1
3
2 1
3
2 1


PD-97 (LCD RGB DRIVER, TIMING GENERATOR, LCD BACKLIGHT)
CD-175 (CCD IMAGER)
MR-39 (REC/PB AMP, SERVO)
DD-103 (POWER SUPPLY, I/O)

MR-39 BOARD

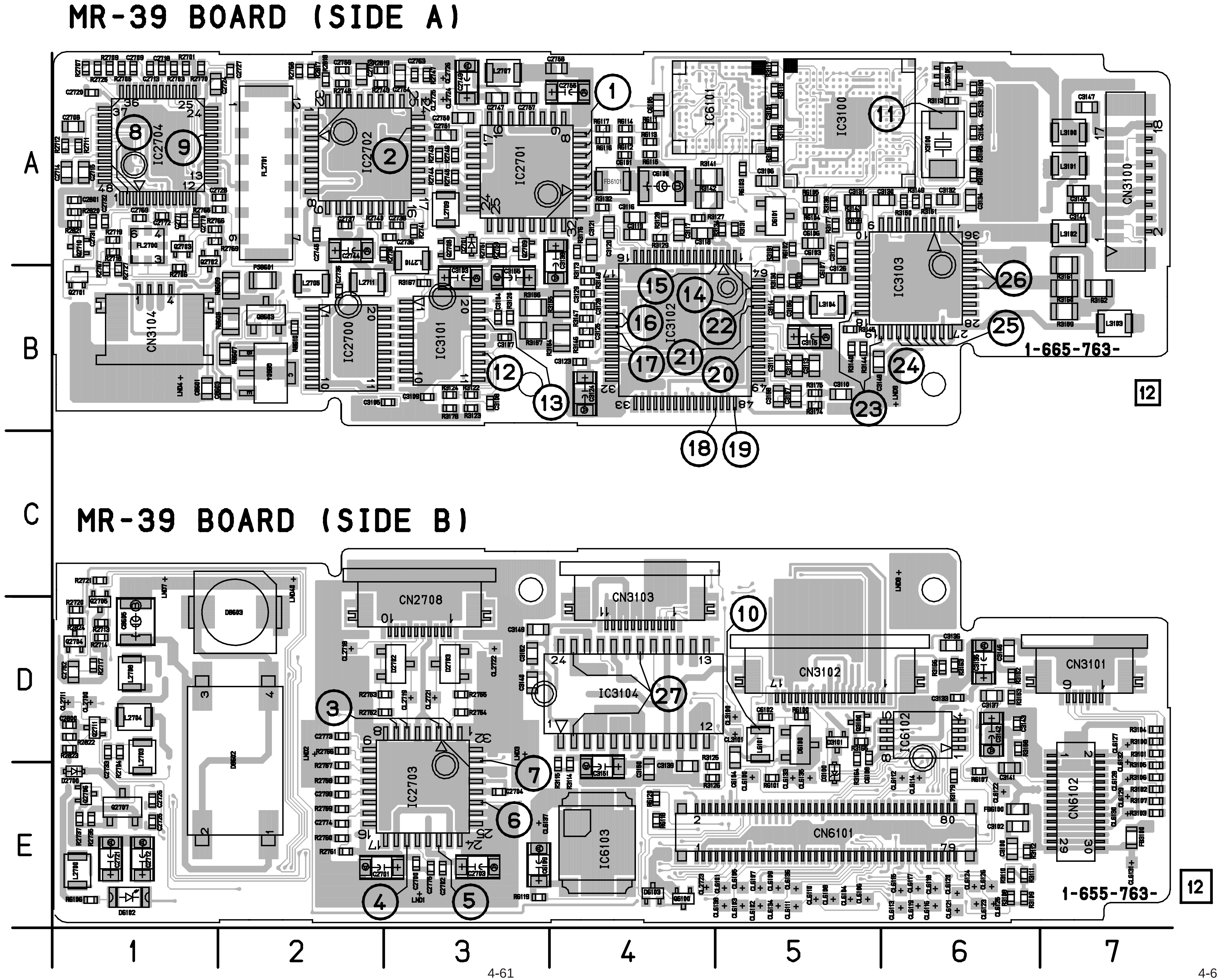
C2700	E-3	C3123	B-4	FB3100	E-7	R2719	A-1	R3130	B-5
C2701	E-2	C3124	B-4	FB6100	E-6	R2720	D-1	R3131	A-5
C2702	E-3	C3125	B-4	FB6101	A-4	R2721	C-1	R3132	A-4
C2703	E-3	C3126	B-5			R2727	B-1	R3133	B-5
C2704	E-3	C3127	A-5	FL2700	A-1	R2735	E-1	R3134	A-5
C2708	A-1	C3128	B-4	FL2701	A-2	R2737	E-1	R3138	A-5
C2709	A-1	C3129	B-4			R2738	A-2	R3139	A-5
C2712	E-1	C3130	A-6	IC2700	B-2	R2740	A-2	R3140	B-5
C2713	A-1	C3131	A-5	IC2701	A-3	R2741	A-3	R3141	A-4
C2714	A-1	C3132	A-6	IC2702	A-2	R2743	A-3	R3142	A-4
C2715	A-1	C3133	D-6	IC2703	E-3	R2744	A-3	R3143	A-5
C2718	A-1	C3134	A-6	IC2704	A-1	R2747	A-3	R3144	B-5
C2720	A-1	C3135	D-6	IC3100	A-5	R2748	A-2	R3145	B-5
C2721	E-1	C3136	D-6	IC3101	B-3	R2749	A-2	R3146	B-4
C2724	A-1	C3137	D-6	IC3102	B-4	R2750	A-3	R3147	B-4
C2725	E-1	C3138	B-4	IC3103	B-6	R2751	A-3	R3148	B-4
C2726	E-1	C3139	E-4	IC3104	D-4	R2752	D-2	R3149	A-6
C2727	A-2	C3140	D-3	IC6101	A-5	R2753	D-3	R3150	A-6
C2728	A-2	C3141	E-6	IC6102	D-6	R2754	D-3	R3151	A-6
C2731	A-1	C3142	D-6	IC6103	E-4	R2755	D-3	R3152	D-6
C2732	A-1	C3143	D-6			R2756	D-2	R3153	D-6
C2733	D-1	C3144	A-7	L2700	E-1	R2757	E-2	R3154	B-3
C2735	B-2	C3145	A-7	L2703	D-1	R2758	E-2	R3155	B-3
C2736	A-3	C3146	D-6	L2704	D-1	R2759	E-2	R3156	B-3
C2737	A-2	C3147	A-7	L2705	B-2	R2760	E-2	R3157	B-3
C2738	A-3	C3148	B-5	L2707	A-3	R2761	E-2	R3158	D-6
C2744	A-2	C3149	D-3	L2708	D-1	R2765	A-2	R3159	B-7
C2745	A-2	C3150	E-4	L2709	A-3	R2766	A-1	R3160	B-7
C2747	A-3	C3151	E-4	L2710	A-3	R2767	B-1	R3161	B-7
C2749	A-3	C3152	D-3	L2711	B-2	R2768	A-2	R3162	B-7
C2750	A-3	C3153	A-6	L3100	A-7	R2769	A-1	R3163	D-6
C2751	A-3	C3154	A-6	L3101	A-7	R2770	A-1	R3164	E-5
C2752	D-1	C3155	B-3	L3102	A-7	R2817	A-2	R3165	D-5
C2753	A-2	C3157	B-5	L3103	B-7	R2818	A-2	R3166	D-6
C2754	A-3	C3158	B-5	L3104	B-5	R2819	A-2	R3167	B-3
C2755	A-4	C6100	A-4	L6100	A-4	R2820	A-1	R3168	A-6
C2757	A-3	C6101	A-4	L6101	D-5	R2821	A-1	R3169	A-6
C2758	A-4	C6102	D-5			R2822	D-1	R3173	B-4
C2759	A-2	C6103	A-5	PS8601	B-2	R2823	D-1	R3174	B-5
C2763	A-3	C6104	E-5			R2824	D-1	R3175	B-5
C2769	A-1	C6105	A-4	Q2701	B-1	R3100	D-7	R3176	A-4
C2770	A-1	C6106	A-5	Q2702	B-1	R3101	D-7	R3177	A-5
C2771	A-1	C6107	B-5	Q2703	A-1	R3102	D-7	R3178	B-3
C2772	A-1	C6108	E-5	Q2704	D-1	R3103	D-7	R3181	A-5
C2773	D-2	C8601	B-1	Q2705	D-1	R3104	D-7	R6100	D-5
C2774	E-2	C8603	B-2	Q2706	E-1	R3105	D-7	R6101	E-5
C2799	E-2	C8605	D-1	Q2707	E-1	R3106	D-7	R6102	A-5
C3100	E-6			Q2708	A-3	R3107	D-7	R6103	A-5
C3101	A-5	CN2708	D-3	Q2709	A-3	R3108	E-6	R6104	A-5
C3102	E-6	CN3100	A-7	Q2710	A-1	R3109	E-6	R6105	A-5
C3103	B-3	CN3101	D-7	Q2711	D-1	R3110	E-6	R6106	E-1
C3104	B-3	CN3102	D-5	Q3100	D-5	R3111	E-6	R6107	E-6
C3105	B-3	CN3103	D-4	Q6100	E-4	R3112	E-6	R6111	A-4
C3106	A-5	CN3104	B-1	Q8603	B-2	R3113	A-6	R6112	A-4
C3107	B-3	CN6101	E-5	Q8604	B-2	R3114	E-4	R6113	A-4
C3108	B-3	CN6102	E-7			R3115	E-4	R6114	A-4
C3109	B-3			R2701	A-1	R3116	A-5	R6115	A-4
C3110	B-5	D2700	E-1	R2703	A-1	R3117	A-5	R6116	A-4
C3111	B-5	D2701	A-3	R2704	D-1	R3118	A-5	R6117	A-4
C3112	B-5	D2702	D-3	R2705	A-1	R3119	A-5	R6118	E-4
C3113	B-5	D2703	D-3	R2706	B-1	R3120	B-3	R6119	E-3
C3114	B-5	D3100	E-5	R2707	A-1	R3122	B-3	R6120	E-4
C3115	B-5	D3101	D-5	R2709	A-1	R3123	B-3	R8607	B-2
C3116	A-4	D6100	D-5	R2711	A-1	R3124	B-3	R8608	B-2
C3117	A-4	D6101	A-5	R2712	A-1	R3125	E-4	R8609	B-2
C3118	A-4	D6102	E-1	R2713	D-1	R3126	E-4	R8610	B-2
C3119	A-4	D6103	E-4	R2714	D-1	R3127	A-4		
C3120	A-4	D8602	E-2	R2717	D-1	R3128	A-4	X3100	A-6
C3121	A-4	D8603	D-2	R2718	A-1	R3129	A-4		

MR-39 (REC/PB AMP, SERVO) PRINTED WIRING BOARD -12

— Ref. No.: MR-39 board; 10,000 series —

There are few cases that the part printed on this diagram isn't mounted in this model.

- See page 4-57 for the printed wiring board part number suffix -11.
- See page 4-63 for MR-39 BOARD schematic diagram.



MR-39 BOARD (SIDE A)
MR-39 BOARD (SIDE B)
A
B
C
D
E
1
2
3
4
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6
7
IC2704
IC2702
IC2701
IC6101
IC3100
CN3100
CN3104
IC2700
IC3101
IC3102
IC3103
FL2701
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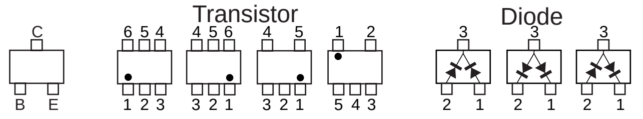
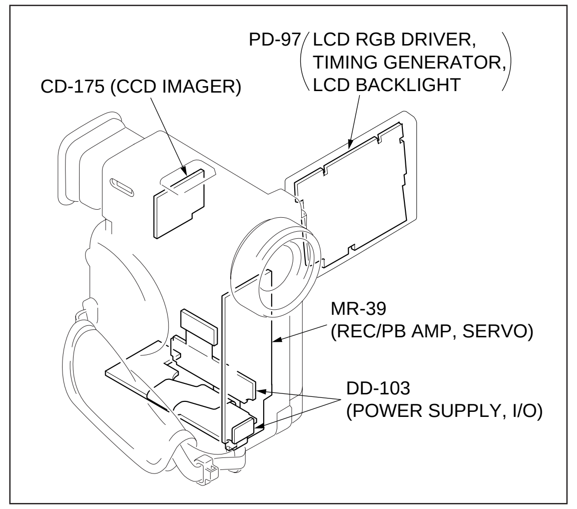
CN2708
CN3103
CN3102
CN3101
IC3104
IC2703
IC6103
IC6102
CN6102
CN6101
1-655-763-
12

• Chip parts.



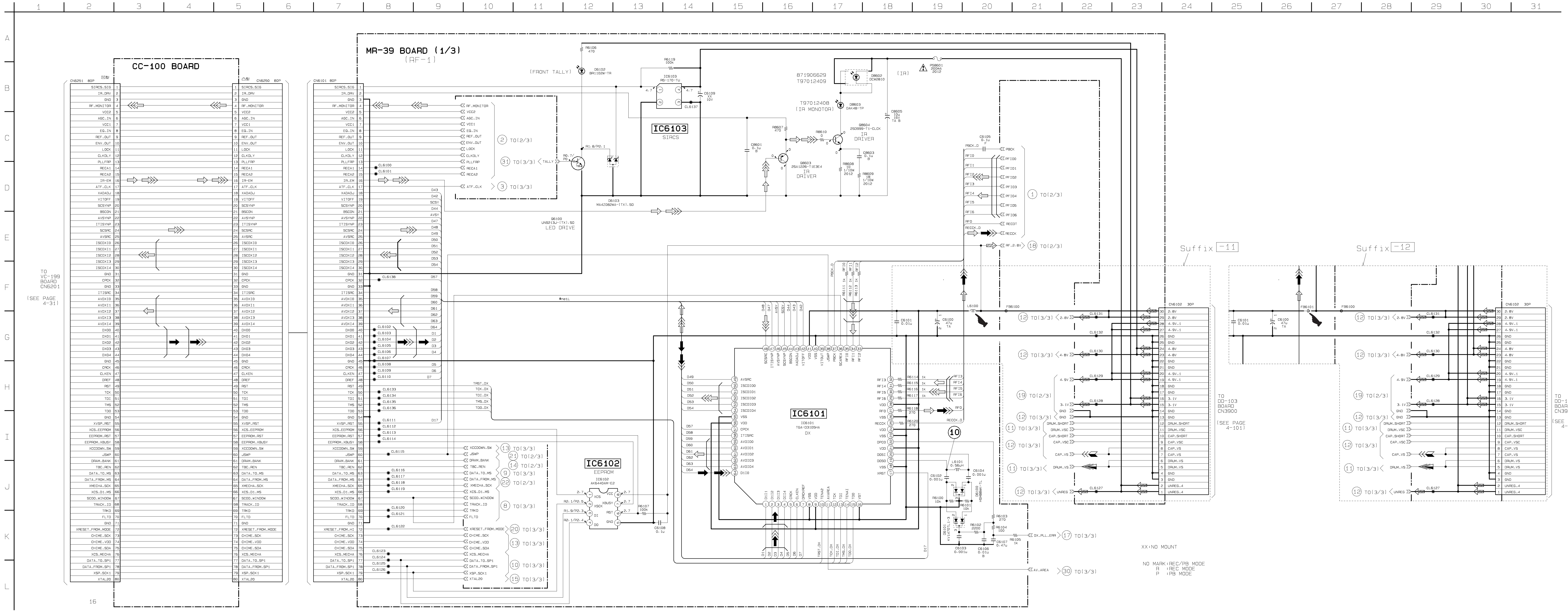
Transistor
Diode
C
B
E
6 5 4
1 2 3
4 5 6
3 2 1
4 5
3 2 1
1 2
5 4 3
3
2 1



PD-97 (LCD RGB DRIVER, TIMING GENERATOR, LCD BACKLIGHT)
CD-175 (CCD IMAGER)
MR-39 (REC/PB AMP, SERVO)
DD-103 (POWER SUPPLY, I/O)

CC-100 (TRANSLATION), MR-39 (REC/PB AMP (1)) SCHEMATIC DIAGRAMS

— Ref. No.: CC-100 board; 20,000 series, MR-39 board; 10,000 series —


CC-100 BOARD
MR-39 BOARD (1/3)
(RF-1)
TO VC-199 BOARD CN6201 (SEE PAGE 4-31)
IC6103 SIRCS
IC6101
IC6102 EEPROM
(FRONT TALLY)
(IR)
IR DRIVER
(IR MONITOR)
LED DRIVE
Suffix -11
Suffix -12
TO DD-103 BOARD CN3900 (SEE PAGE 4-101)
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

•SIGNAL PATH

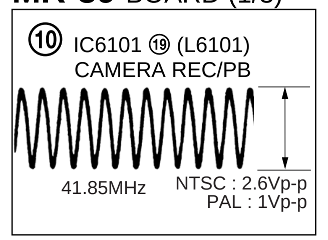
	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			➡≫	➡
PB			⇨≫	⇨

•SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo			
Drum phase servo			
Drum servo (speed and phase)		⋙	
Capstan speed servo			
Capstan phase servo			
Capstan servo (speed and phase)		➤≫	
Ref.signal			

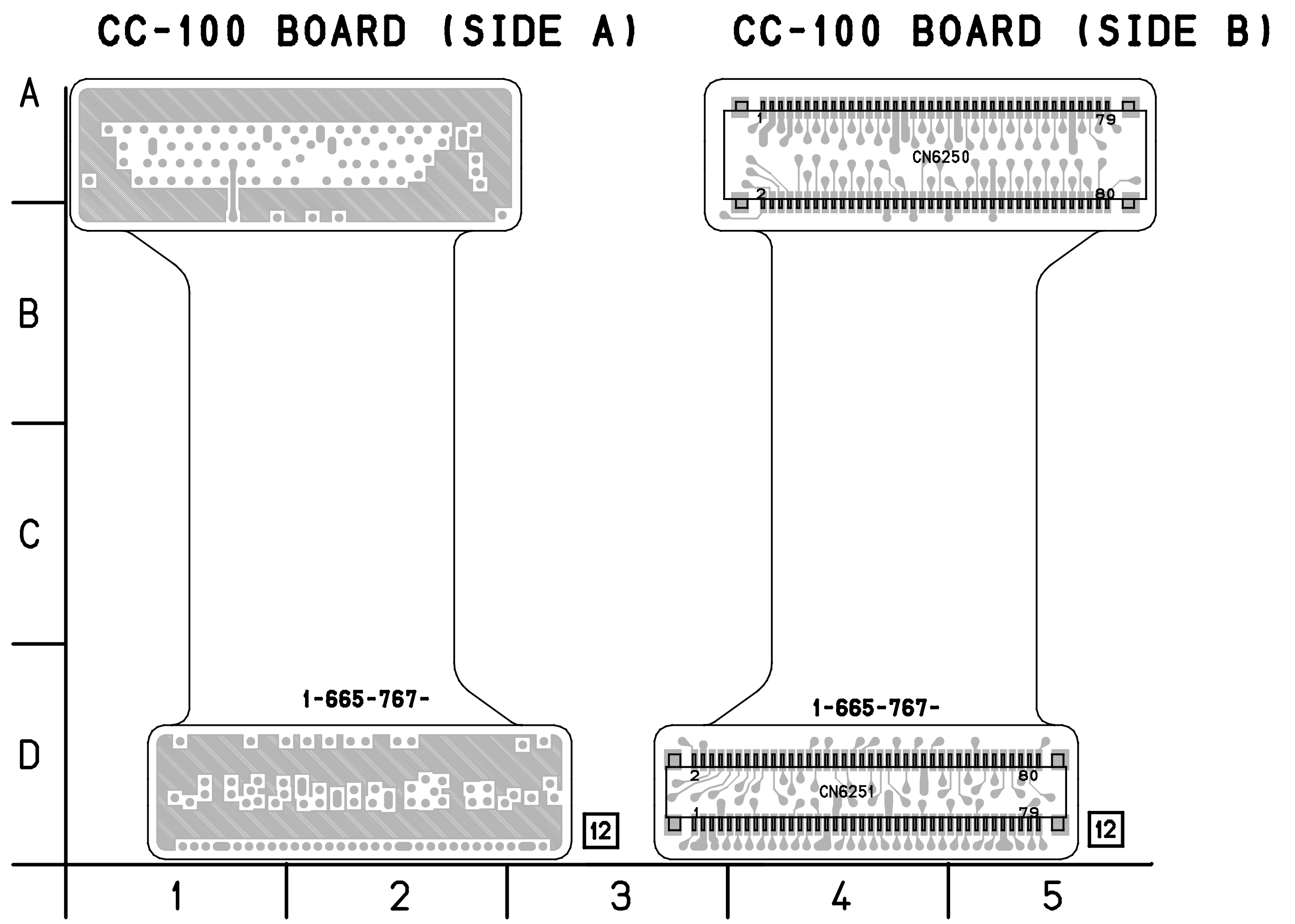
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MR-39 BOARD (1/3)

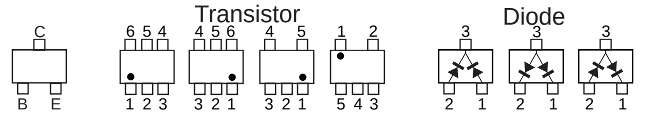


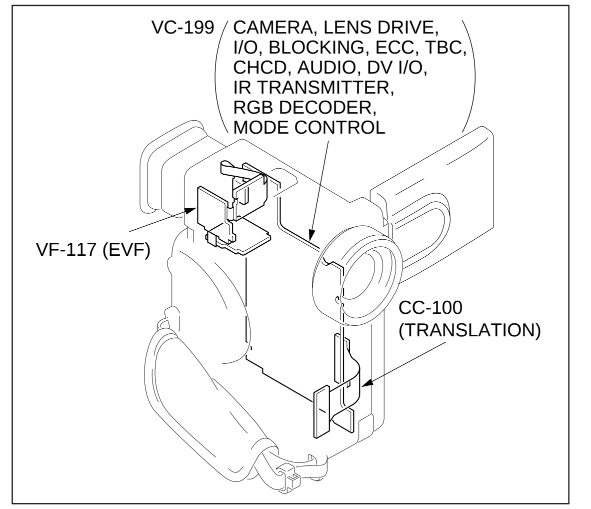
CC-100 (TRANSLATION) PRINTED WIRING BOARD

— Ref. No.: CC-100 board; 20,000 series —


CC-100 BOARD (SIDE A)
CC-100 BOARD (SIDE B)
A
B
C
D
1
2
3
4
5
1-665-767-
1-665-767-
CN6250
CN6251
1
2
79
80
12
12

• Chip parts.


Transistor
Diode
C
B E
6 5 4
1 2 3
4 5 6
3 2 1
4 5
3 2 1
1 2
5 4 3
3
2 1
3
2 1
3
2 1

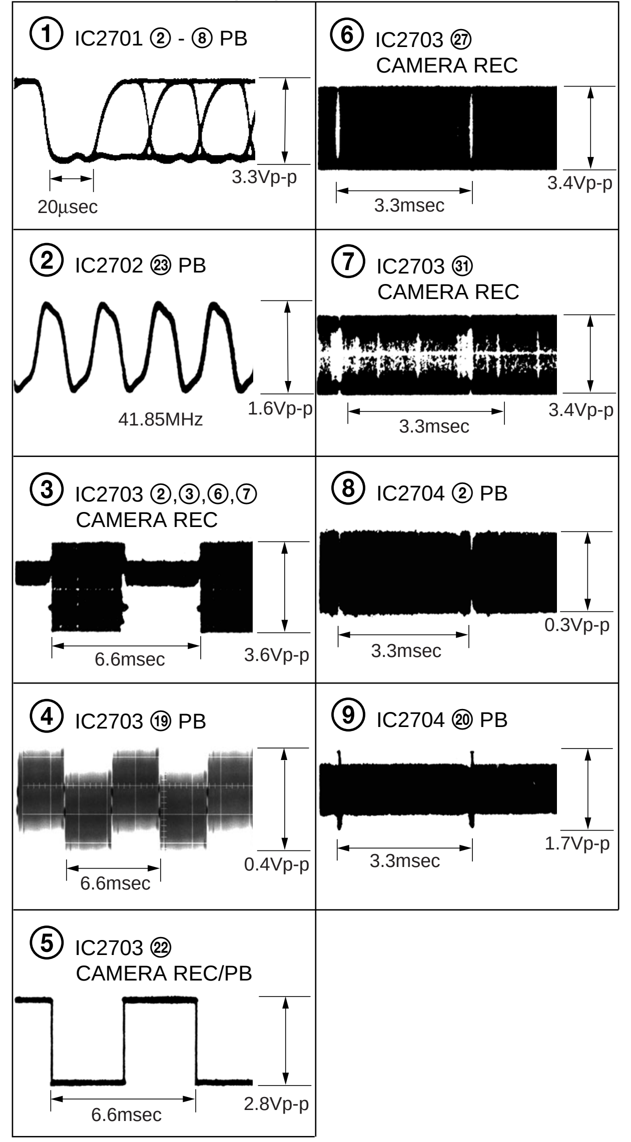

VC-199
CAMERA, LENS DRIVE, I/O, BLOCKING, ECC, TBC, CHCD, AUDIO, DV I/O, IR TRANSMITTER, RGB DECODER, MODE CONTROL
VF-117 (EVF)
CC-100 (TRANSLATION)

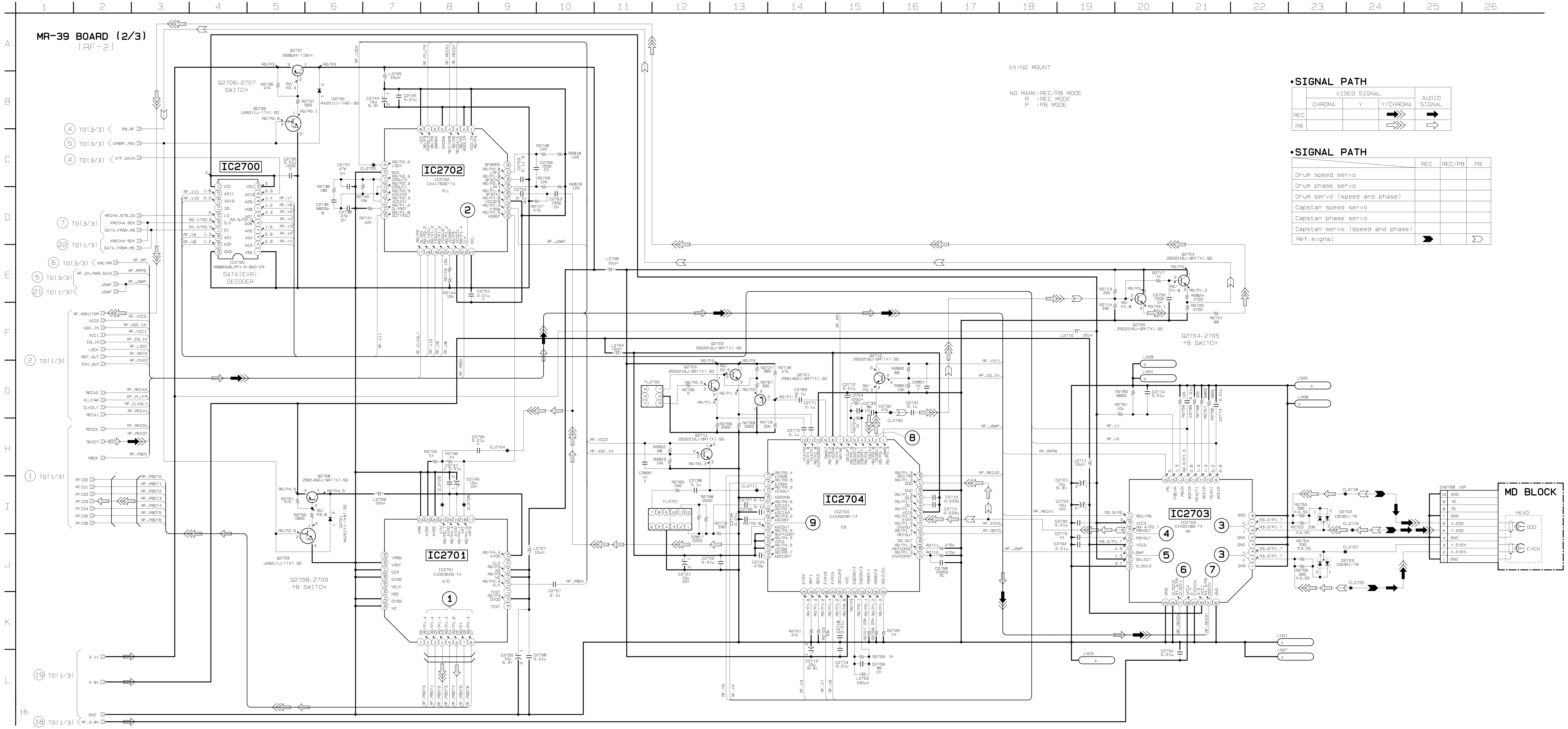
MR-39 (REC/PB AMP (2)) SCHEMATIC DIAGRAM

— Ref. No.: MR-39 board; 10,000 series —

• See page 4-57 or 4-60 for MR-39 BOARD printed wiring board.

MR-39 BOARD (2/3)




MR-39 BOARD (2/3)
(RF-2)
IC2700
IC2700 MB88346LPFV-G-BND-ER
DATA(EVR) DECODER
IC2702
IC2702 CXA1762Q-T4
PLL
IC2701
IC2701 CXD2302Q-T4
A/D
IC2704
IC2704 CXA2023R-T4
EQ
IC2703
IC2703 CXA2018Q-T4
RP
MD BLOCK
HEAD
ODD
EVEN
Q2706, 2707 SWITCH
Q2708, 2709 +B SWITCH
Q2704, 2705 +B SWITCH
TO(3/3)
TO(1/3)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
A B C D E F G H I J K L

XX:NO MOUNT

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC			➡》	➡
PB			⇨》	⇨

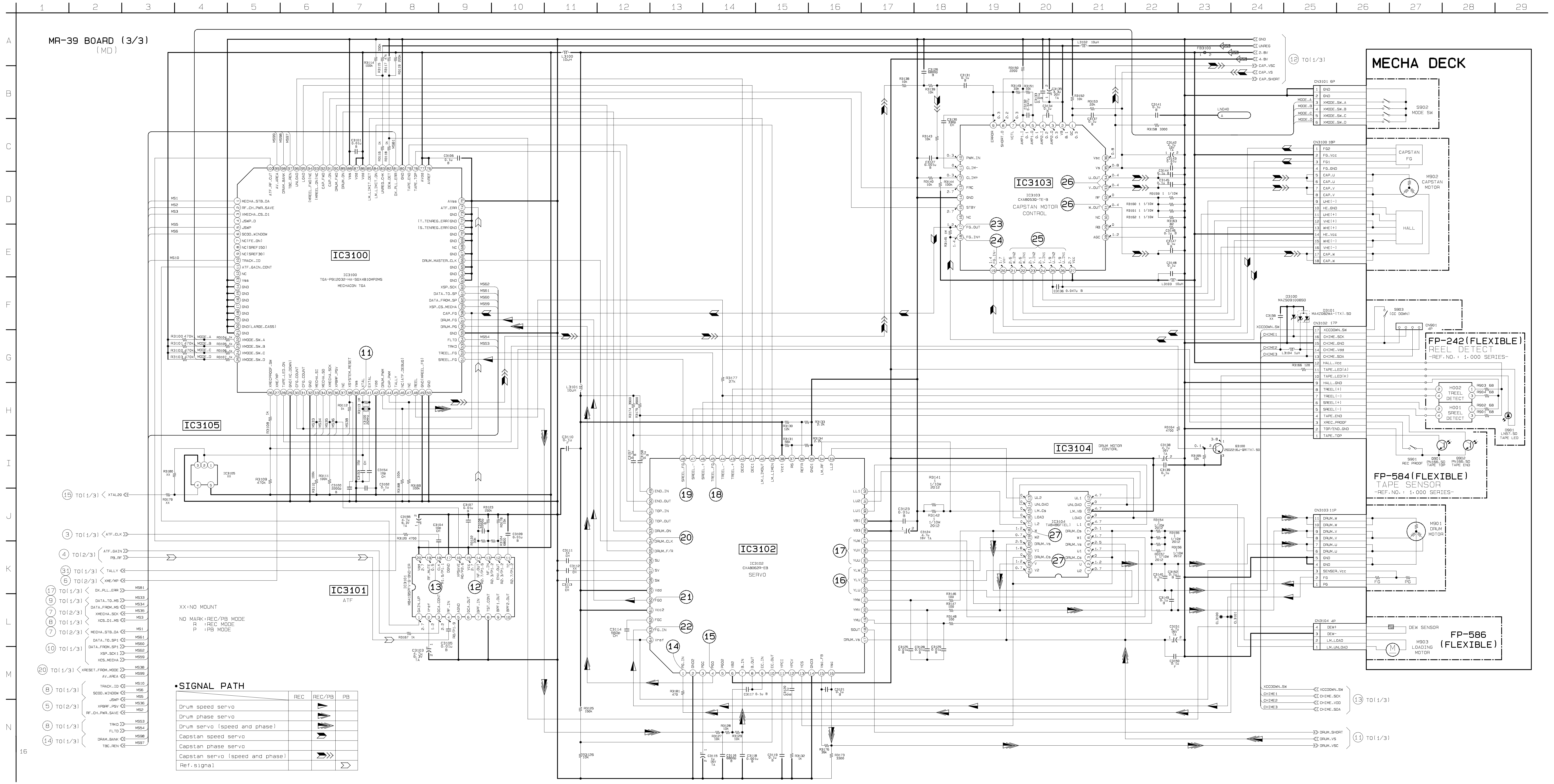
•SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo			
Drum phase servo			
Drum servo (speed and phase)			
Capstan speed servo			
Capstan phase servo			
Capstan servo (speed and phase)			
Ref.signal	➤		⊳

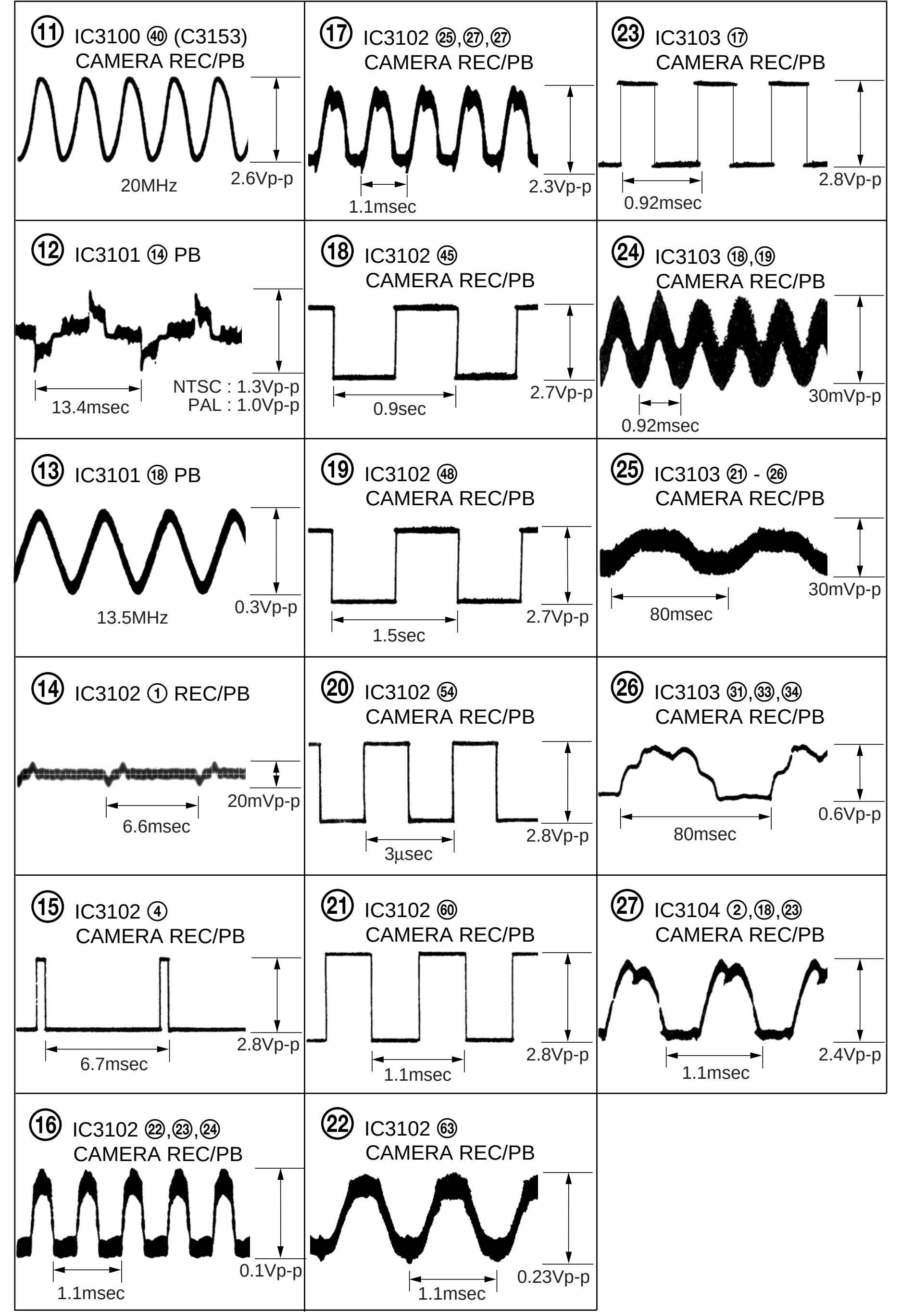
MR-39 (SERVO), FP-242/FP-584 (TAPE SENSOR) SCHEMATIC DIAGRAM

— Ref. No.: MR-39 board; 10,000 series, FP-242 and FP-586 boards; 1,000 series —

- See page 4-62 for MR-39 BOARD printed wiring board.


MR-39 BOARD (3/3)
(MD)
IC3100
IC3101
ATF
IC3102
SERVO
IC3103
CAPSTAN MOTOR CONTROL
IC3104
DRUM MOTOR CONTROL
IC3105
MECHA DECK
FP-242(FLEXIBLE)
REEL DETECT
FP-584(FLEXIBLE)
TAPE SENSOR
FP-586 (FLEXIBLE)
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
•SIGNAL PATH
REC
REC/PB
PB
Drum speed servo
Drum phase servo
Drum servo (speed and phase)
Capstan speed servo
Capstan phase servo
Capstan servo (speed and phase)
Ref.signal

MR-39 BOARD (3/3)

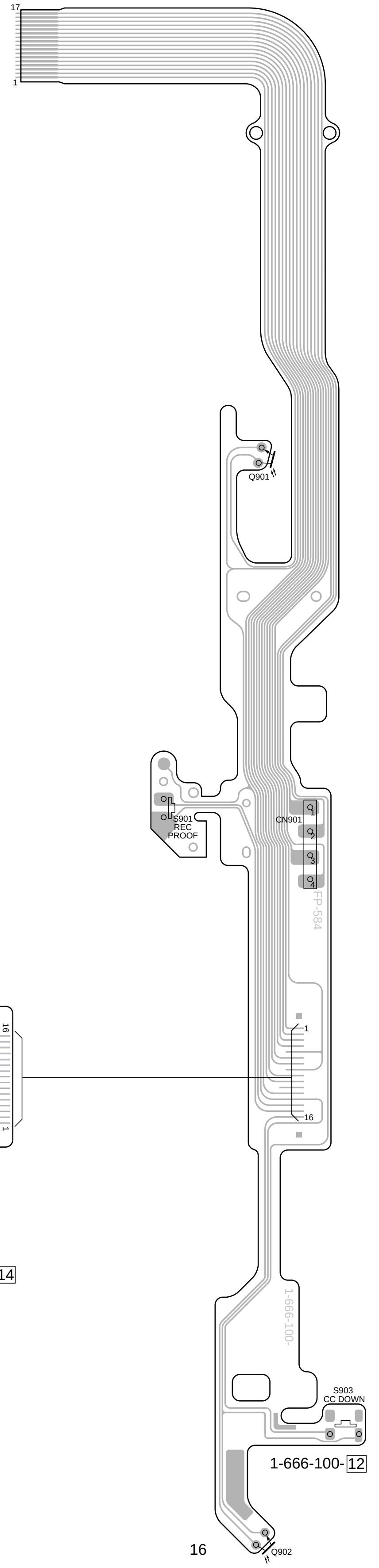


FP-242 and FP-584 (TAPE SENSORS) PRINTED WIRING BOARDS

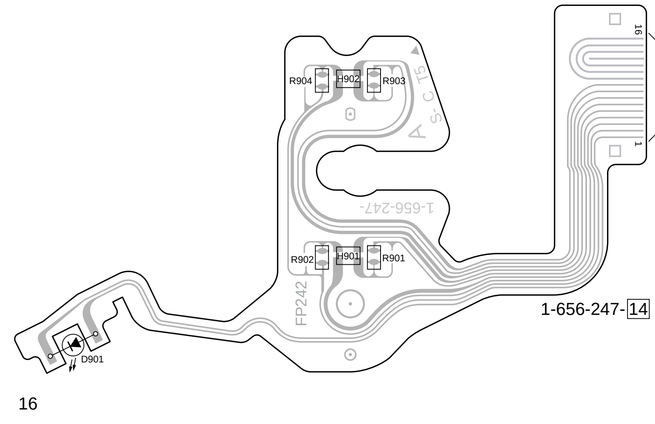
— Ref. No.: FP-242 and FP-584 boards; 1,000 series —

There are few cases that the part printed on this diagram isn't mounted in this model.

FP-584 BOARD


17
1
S903
CC DOWN
Q902
16
1-666-100-12

FP-242 BOARD


R901
1-656-247-14
16

PD-97 (LCD DRIVER) PRINTED WIRING BOARD

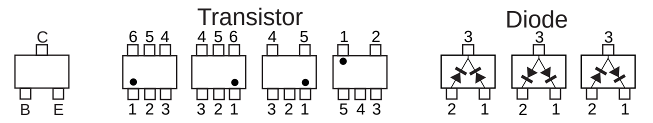
— Ref. No.: PD-97 board; 30,000 series —

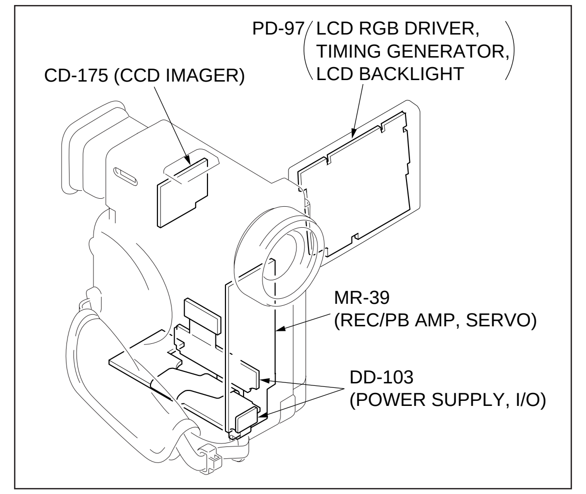
There are few cases that the part printed on this diagram isn't mounted in this model.

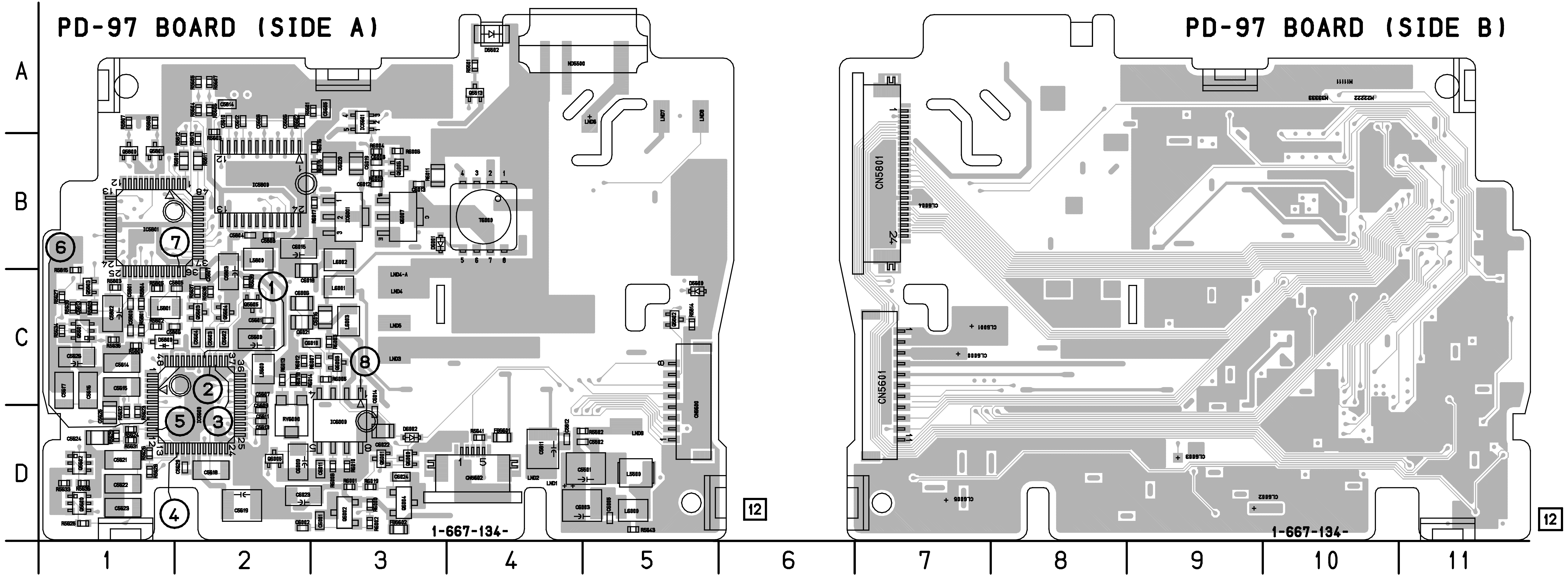
PD-97 BOARD

C5501	D-4	C6014	D-3	Q5513	A-4	R5637	C-2
C5502	D-4	C6015	B-2	Q5600	D-1	R5638	C-2
C5600	C-2	C6016	C-3	Q5601	C-1	R5639	C-2
C5601	C-2	C6018	C-2	Q5602	D-1	R5641	D-4
C5602	C-2	C6019	B-3	Q5603	C-2	R5800	C-1
C5603	C-2	C6020	B-3	Q5604	C-2	R5801	C-1
C5604	C-2	C6021	C-2	Q5605	C-2	R5802	C-1
C5605	A-3	C6022	D-3	Q5800	B-1	R5803	C-1
C5614	C-1	C6023	D-2	Q5801	B-1	R5804	C-1
C5615	C-1	C6024(-12)	D-3	Q5802	C-5	R5805	C-1
C5616	C-1			Q5803	C-1	R5807	A-1
C5617	C-1	CN5600	C-5	Q6000	D-3	R5808	A-1
C5618	D-2	CN5601	C-6	Q6001	D-3	R5809	C-1
C5619	D-2	CN5602	D-4	Q6002	D-3	R5810	B-2
C5620	D-2	CN5801	B-6	Q6004	D-3	R5811	B-2
C5621	D-1			Q6005	D-2	R5812	B-2
C5622	D-1	D5502	A-4	Q6006	B-3	R5813	B-2
C5623	D-1	D5600	C-5	Q6007	B-3	R5814	C-5
C5624	D-1	D5800	C-1	Q6008	C-3	R5815	C-1
C5625	D-1	D6001	B-3			R6000	D-3
C5626	C-1	D6002	D-3	R5501	A-4	R6001	D-3
C5800	C-1			R5502	D-4	R6002	D-3
C5801	C-1	FB5601	D-4	R5601	A-2	R6003	C-3
C5802	C-1	FB5602	D-3	R5602	A-2	R6004	B-3
C5803	C-2			R5603	A-2	R6005	C-3
C5804	B-2	IC5600	D-2	R5604	A-2	R6006	B-3
C5805	C-1	IC5601	A-3	R5605	A-2	R6007	C-3
C5806	C-1	IC5800	B-2	R5606	A-2	R6008	D-3
C5807	C-2	IC5801	B-1	R5607	A-2	R6009	B-3
C5808	B-2	IC6000	D-3	R5623	D-1	R6010	D-3
C5811	D-4	IC6001	B-3	R5624	D-1	R6011	B-3
C5812	D-4	L5500	D-5	R5625	D-1	R6012	C-2
C6001	D-3	L5600	C-2	R5626	D-1	R6013	C-2
C6003	D-4	L5800	B-2	R5628	D-1	R6014	C-2
C6005	D-5	L5801	C-1	R5629	D-1	R6015	B-2
C6006	C-2	L6000	D-5	R5630	C-1	R6016	B-2
C6008	B-3	L6001	C-3	R5631	D-1	R6017	B-2
C6009	D-2	L6002	B-3	R5632	D-1	R6019(-12)	D-3
C6010	C-2	L6003	C-3	R5633	D-1		
C6011	D-3			R5634	C-1	RV6000	D-2
C6012	B-3	ND5500	A-4	R5635	C-1		
C6013	B-3			R5636	D-1	T6000	B-4

- **Chip parts.**

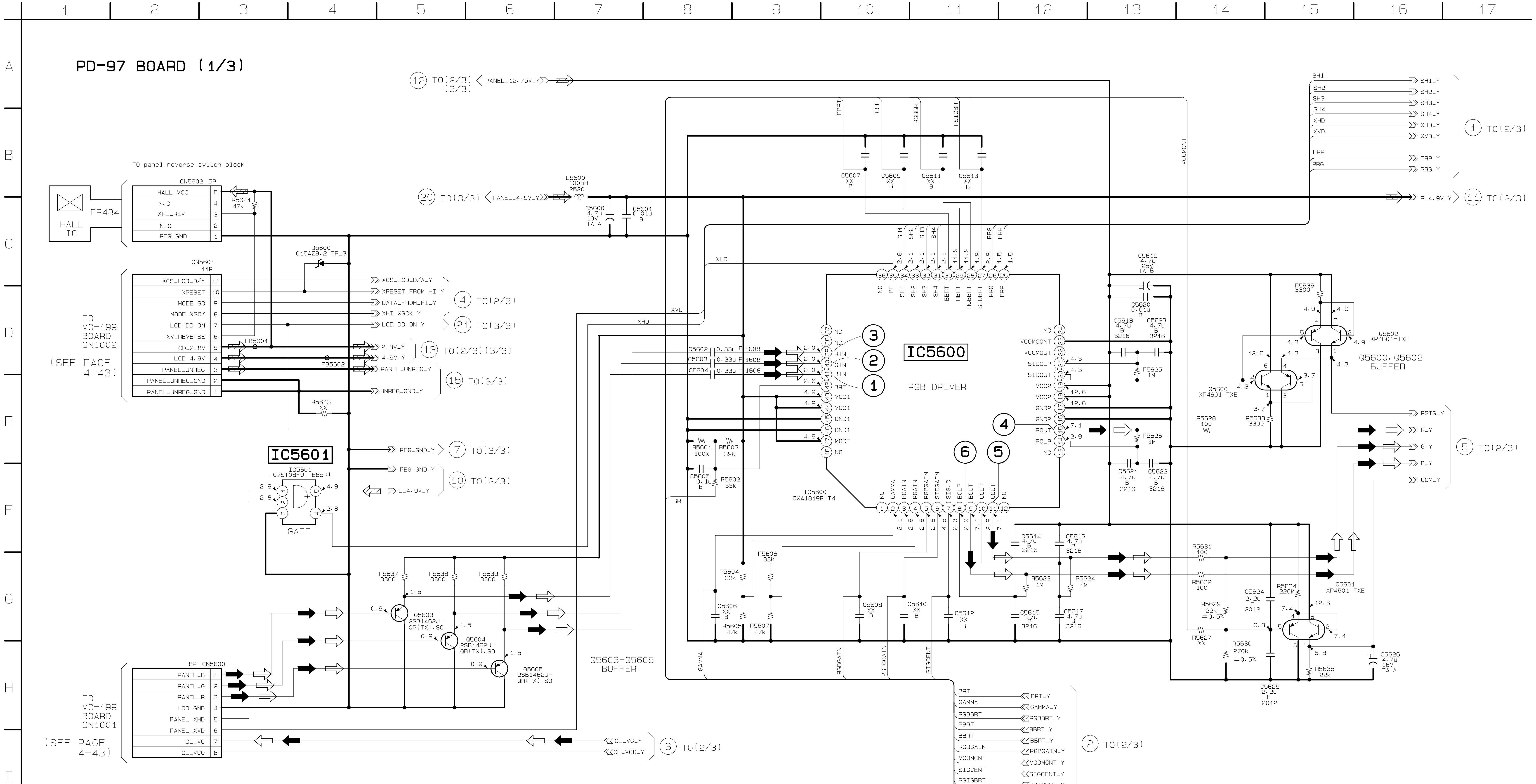

Transistor
Diode
C
B E
6 5 4
1 2 3
4 5 6
3 2 1
4 5
3 2 1
1 2
5 4 3
3
2 1
3
2 1
3
2 1


PD-97 (LCD RGB DRIVER, TIMING GENERATOR, LCD BACKLIGHT)
CD-175 (CCD IMAGER)
MR-39 (REC/PB AMP, SERVO)
DD-103 (POWER SUPPLY, I/O)


PD-97 BOARD (SIDE A)
PD-97 BOARD (SIDE B)
A
B
C
D
1
2
3
4
5
6
7
8
9
10
11
1-667-134-
12
CN5801
CN5601
IC5800
IC5801
IC6000
IC6001
T6000
ND5500
RV6000
CN5602
①
②
③
④
⑤
⑥
⑦
⑧

PD-97 (LCD RGB DRIVER) SCHEMATIC DIAGRAM

— Ref. No.: PD-97 board; 30,000 series —


PD-97 BOARD (1/3)
IC5600
RGB DRIVER
IC5600 CXA1819R-T4
IC5601
IC5601 TC7S08FU(TE85R)
GATE
Q5600·Q5602 BUFFER
Q5603-Q5605 BUFFER
HALL IC
FP4B4
TO panel reverse switch block
CN5602 5P
CN5601 11P
8P CN5600
TO VC-199 BOARD CN1002 (SEE PAGE 4-43)
TO VC-199 BOARD CN1001 (SEE PAGE 4-43)
TO(2/3)
TO(3/3)
TO(2/3)(3/3)
PANEL_12.75V_Y
PANEL_4.9V_Y
P_4.9V_Y
SH1_Y
SH2_Y
SH3_Y
SH4_Y
XHD_Y
XVD_Y
FRP_Y
PRG_Y
PSIG_Y
R_Y
G_Y
B_Y
COM_Y
BRT_Y
GAMMA_Y
RGBBRT_Y
RBRT_Y
BBRT_Y
RGBGAIN_Y
VCOMCNT_Y
SIGCENT_Y
PSIGBRT_Y
PSIGGAIN_Y
CL_VG_Y
CL_VCO_Y
XCS_LCD_D/A_Y
XRESET_FROM_HI_Y
DATA_FROM_HI_Y
XHI_XSCK_Y
LCD_DD_ON_Y
2.8V_Y
4.9V_Y
PANEL_UNREG_Y
UNREG_GND_Y
REG_GND_Y
L_4.9V_Y
Q5600 XP4601-TXE
Q5601 XP4601-TXE
Q5602 XP4601-TXE
Q5603 2SB1462J-QR(TX).SO
Q5604 2SB1462J-QR(TX).SO
Q5605 2SB1462J-QR(TX).SO
D5600 015AZ8.2-TPL3
L5600 100uH 2520
FB5601
FB5602

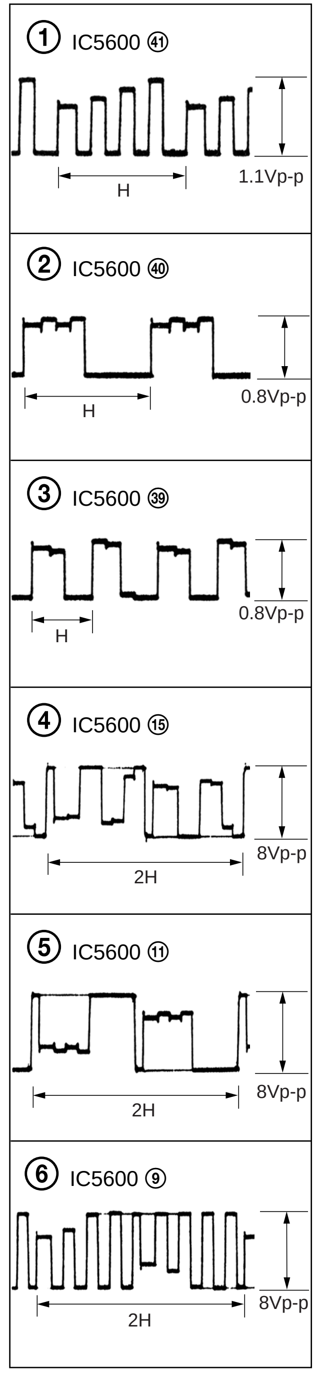
•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡			
PB	⇨			

XX: NO MOUNT

NO MARK: REC/PB MODE
R : REC MODE
P : PB MODE

PD-97 BOARD (1/3)
(CAMERA REC/PB)

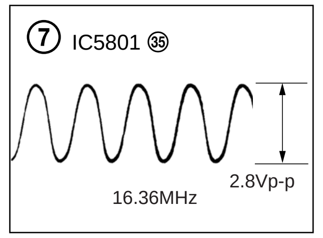


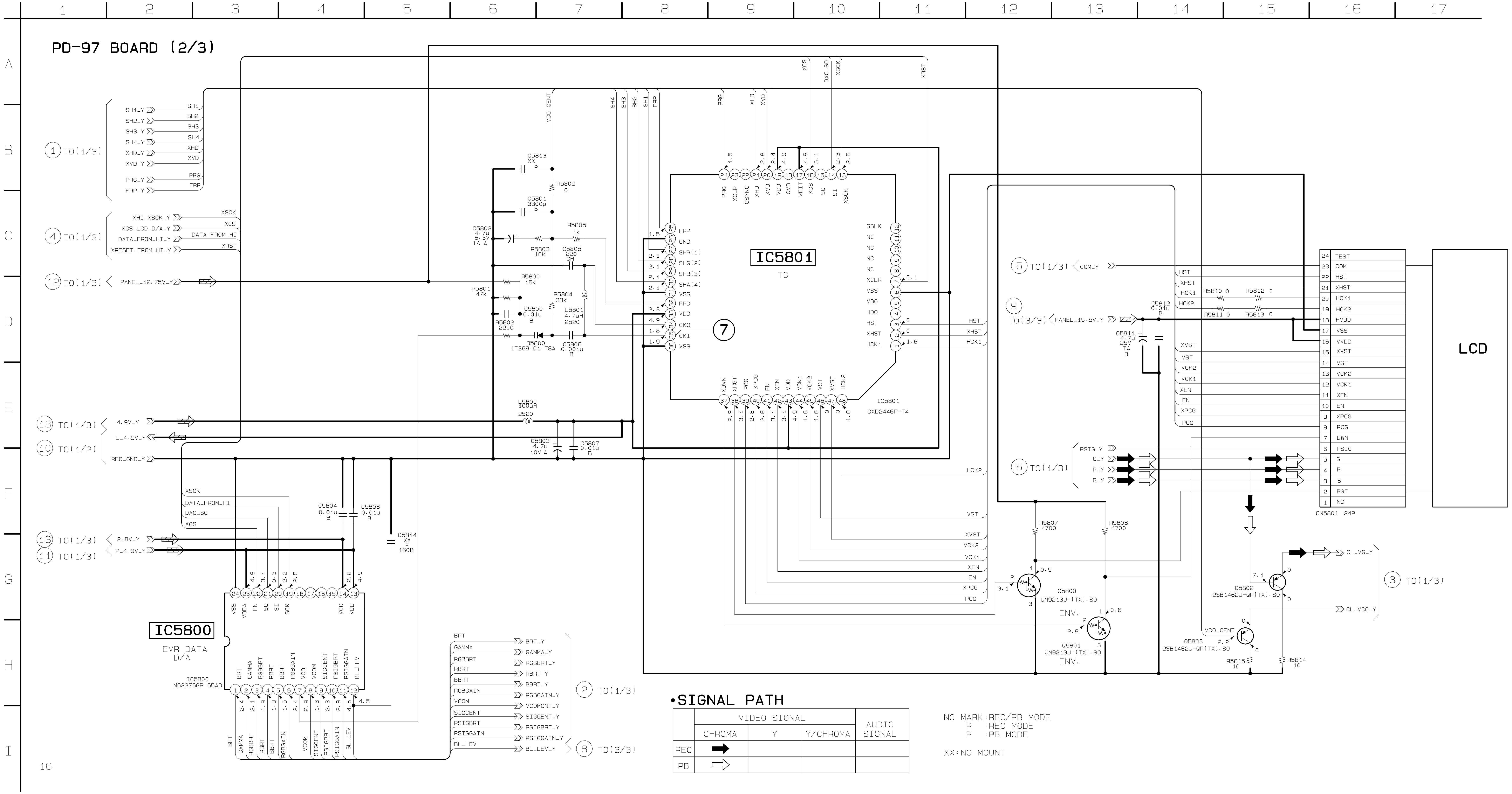
PD-97 (TIMING GENERATOR) SCHEMATIC DIAGRAM

— Ref. No.: PD-97 board; 30,000 series —

• See page 4-77 for PD-97 BOARD printed wiring board.

PD-97 BOARD (2/3)
(CAMERA REC/PB)




PD-97 BOARD (2/3)
IC5801
TG
IC5801
CXD2446R-T4
IC5800
EVR DATA
D/A
IC5800
M62376GP-65AD
LCD
CN5801 24P
① TO(1/3)
④ TO(1/3)
⑫ TO(1/3)
⑬ TO(1/3)
⑩ TO(1/2)
⑪ TO(1/3)
② TO(1/3)
⑧ TO(3/3)
⑤ TO(1/3)
⑨ TO(3/3)
③ TO(1/3)
SH1_Y
SH2_Y
SH3_Y
SH4_Y
XHD_Y
XVD_Y
PRG_Y
FRP_Y
XHI_XSCK_Y
XCS_LCD_D/A_Y
DATA_FROM_HI_Y
XRESET_FROM_HI_Y
PANEL_12.75V_Y
4.9V_Y
L_4.9V_Y
REG_GND_Y
2.8V_Y
P_4.9V_Y
COM_Y
PANEL_15.5V_Y
PSIG_Y
G_Y
R_Y
B_Y
CL_VG_Y
CL_VCO_Y
BAT_Y
GAMMA_Y
RGBBAT_Y
RBAT_Y
BBAT_Y
RGBGAIN_Y
VCOMCNT_Y
SIGCENT_Y
PSIGBAT_Y
PSIGGAIN_Y
BL_LEV_Y
C5813 XX B
R5809 0
C5801 3300p B
C5802 4.7u 6.3V TA A
R5805 1k
R5803 10k
C5805 22p CH
R5800 15k
R5801 47K
R5804 33k
C5800 0.01u B
L5801 4.7uH 2520
R5802 2200
D5800 1T369-01-T8A
C5806 0.001u B
L5800 100uH 2520
C5803 4.7u 10V A
C5807 0.01u B
C5804 0.01u B
C5808 0.01u B
C5814 XX F 1608
C5812 0.01u B
C5811 4.7u 25V TA B
R5810 0
R5812 0
R5811 0
R5813 0
R5807 4700
R5808 4700
Q5800 UN9213J-(TX).SO INV.
Q5801 UN9213J-(TX).SO INV.
Q5802 2SB1462J-QR(TX).SO
Q5803 2SB1462J-QR(TX).SO
R5815 10
R5814 10
VCO_CENT
16

•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡			
PB	⇨			

NO MARK : REC/PB MODE
R : REC MODE
P : PB MODE

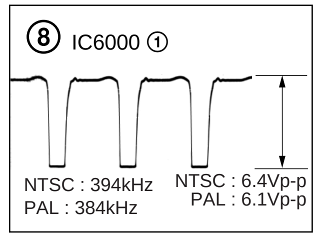
XX : NO MOUNT

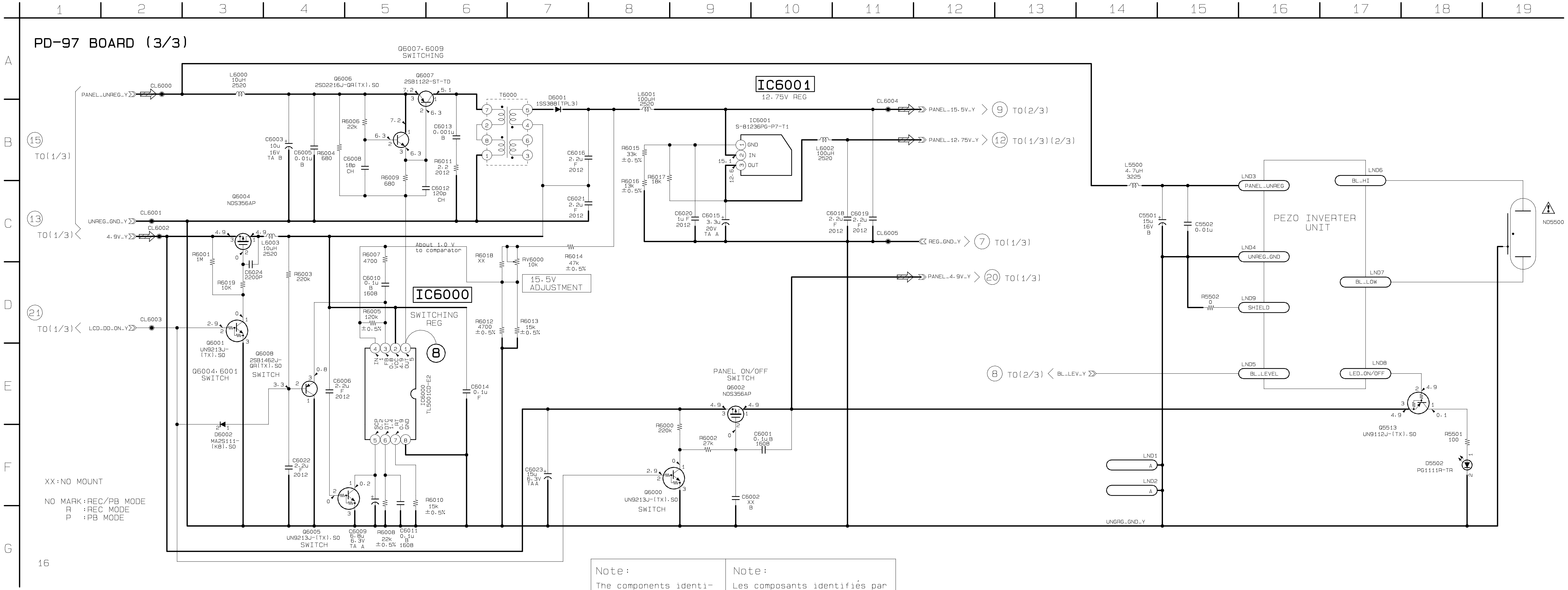
PD-97 (LCD, POWER SUPPLY FOR LCD BACK LIGHT) SCHEMATIC DIAGRAM

—Ref. No.: PD-97 board; 30,000 series —

• See page 4-77 for PD-97 BOARD printed wiring board.

PD-97 BOARD (3/3)
(CAMERA REC/PB)





1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
A B C D E F G
PD-97 BOARD (3/3)
Q6007,6009 SWITCHING
PANEL_UNREG_Y
CL6000
L6000 10uH 2520
Q6006 2SD2216J-QR(TX).SO
Q6007 2SB1122-ST-TD
T6000
D6001 1SS388(TPL3)
L6001 100uH 2520
IC6001
12.75V REG
IC6001 S-81236PG-P7-T1
GND
IN
OUT
CL6004
PANEL_15.5V_Y
⑨ TO(2/3)
PANEL_12.75V_Y
⑫ TO(1/3)(2/3)
⑮ TO(1/3)
⑬ TO(1/3)
㉑ TO(1/3)
UNREG_GND_Y
4.9V_Y
LCD_DD_ON_Y
CL6001
CL6002
CL6003
C6003 10u 16V TA B
C6005 0.01u B
R6004 680
R6006 22k
C6008 18p CH
R6009 680
C6013 0.001u B
R6011 2.2 2012
C6012 120p CH
C6016 2.2u F 2012
C6021 2.2u F 2012
R6015 33k ±0.5%
R6016 13k ±0.5%
R6017 18k
C6020 1u F 2012
C6015 3.3u 20V TA A
L6002 100uH 2520
C6018 2.2u F 2012
C6019 2.2u F 2012
CL6005
REG_GND_Y
⑦ TO(1/3)
PANEL_4.9V_Y
⑳ TO(1/3)
Q6004 NDS356AP
L6003 10uH 2520
R6001 1M
C6024 2200P
R6019 10K
R6003 220k
R6007 4700
C6010 0.1u B 1608
About 1.0 V to comparator
R6018 XX
RV6000 10k
R6014 47k ±0.5%
15.5V ADJUSTMENT
IC6000
SWITCHING REG
R6005 120k ±0.5%
R6012 4700 ±0.5%
R6013 15k ±0.5%
⑧
IN-1 FB-1 VCC OUT
IC6000 TL5001CD-E2
SCP DTC RT GND
C6014 0.1u F
Q6001 UN9213J-(TX).SO
Q6004,6001 SWITCH
Q6008 2SB1462J-QR(TX).SO SWITCH
C6006 2.2u F 2012
D6002 MA2S111-(K8).SO
C6022 2.2u F 2012
Q6005 UN9213J-(TX).SO SWITCH
C6009 6.8u 6.3V TA A
R6008 22k ±0.5%
C6011 0.1u B 1608
R6010 15k ±0.5%
C6023 15u 6.3V TA A
PANEL ON/OFF SWITCH
Q6002 NDS356AP
R6000 220k
R6002 27k
C6001 0.1u B 1608
C6002 XX B
Q6000 UN9213J-(TX).SO SWITCH
L5500 4.7uH 3225
C5501 15u 16V B
C5502 0.01u
R5502 0
LND3 PANEL_UNREG
LND4 UNREG_GND
LND9 SHIELD
LND5 BL_LEVEL
LND6 BL_HI
LND7 BL_LOW
LND8 LED_ON/OFF
PEZO INVERTER UNIT
ND5500
⑧ TO(2/3) BL_LEV_Y
Q5513 UN9112J-(TX).SO
R5501 100
D5502 PG1111R-TR
LND1 A
LND2 A
UNGRG_GND_Y
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
16

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

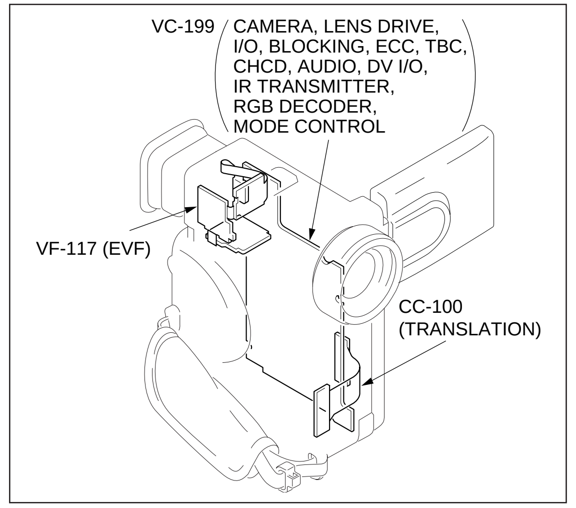
VF-117 (EVF) PRINTED WIRING BOARD

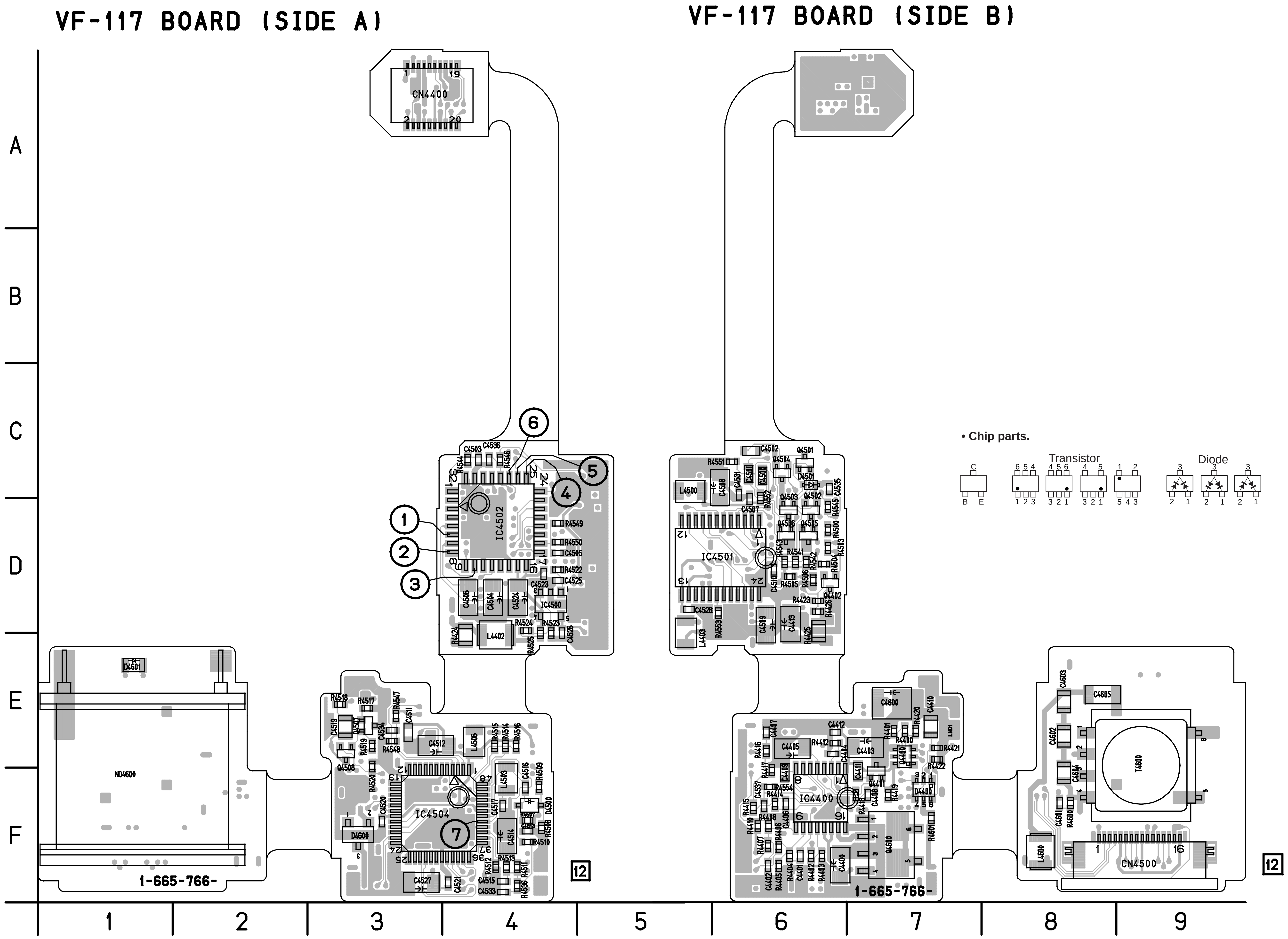
— Ref. No.: VF-117 board; 30,000 series —

There are few cases that the part printed on this diagram isn't mounted in this model.

VF-117 BOARD

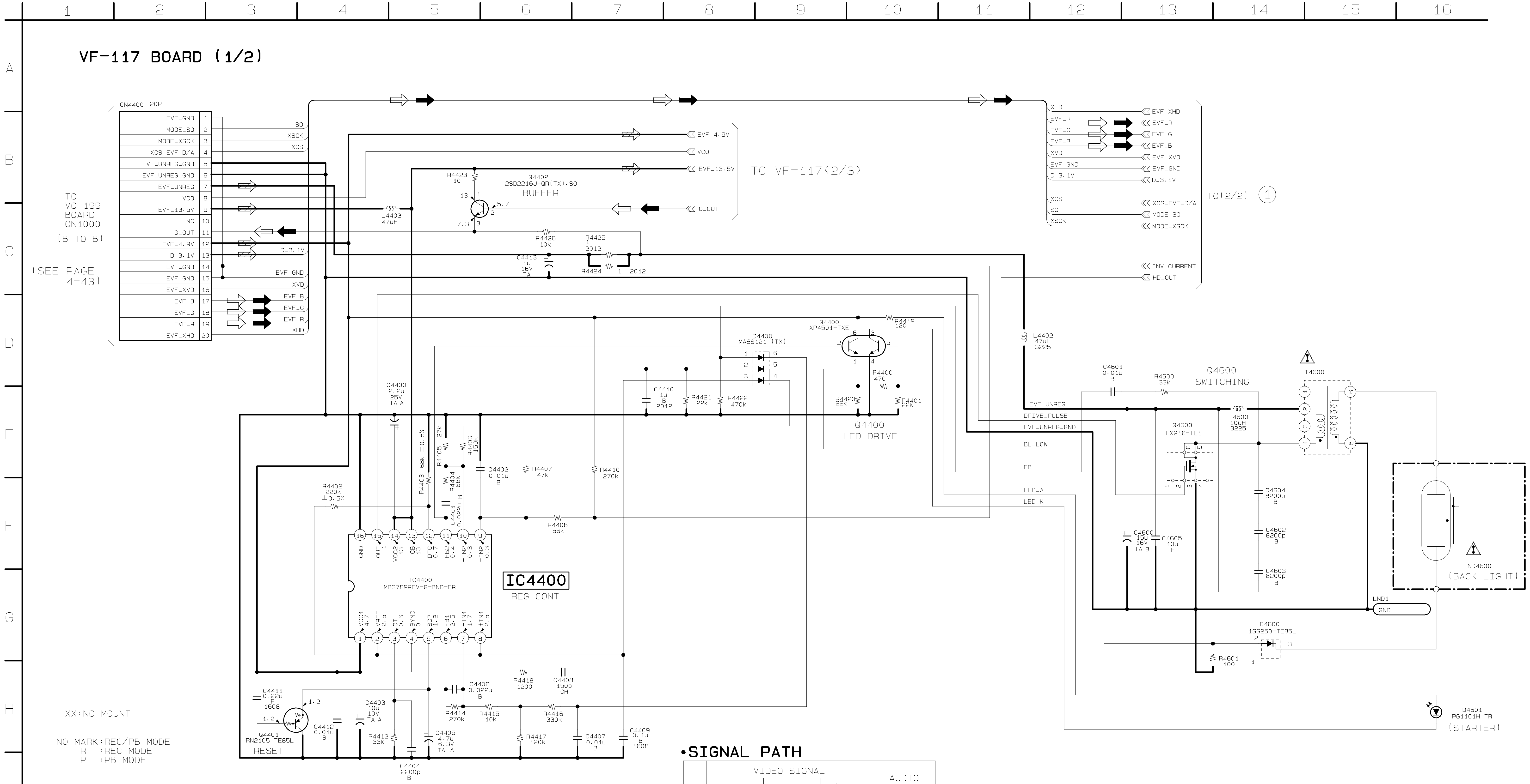
C4400	F-6
C4401	F-6
C4402	F-6
C4403	E-7
C4404	E-6
C4405	E-6
C4406	F-6
C4407	E-6
C4408	F-7
C4409	F-6
C4410	E-7
C4411	F-7
C4412	E-6
C4413	D-6
C4500	C-6
C4501	C-6
C4502	C-6
C4503	C-4
C4504	D-4
C4505	D-4
C4506	D-4
C4507	D-6
C4508	C-6
C4509	D-6
C4510	D-6
C4511	E-3
C4512	E-3
C4513	F-4
C4514	F-4
C4515	F-4
C4516	F-4
C4517	F-4
C4519	E-3
C4523	D-4
C4524	D-4
C4525	D-4
C4527	F-3
C4528	D-5
C4531	C-6
C4533	F-4
C4535	C-6
C4536	C-4
C4600	E-7
C4601	F-8
C4602	E-8
C4603	E-8
C4604	F-8
C4605	E-8
CN4400	A-3
CN4500	F-9
D4400	F-7
D4500	F-4
D4501	C-6
D4600	F-3
D4601	E-1
IC4400	F-6
IC4500	D-4
IC4501	D-6
IC4502	D-4
IC4504	F-3
L4402	E-4
L4403	D-5
L4500	C-5
L4503	F-4
L4506	E-4
L4600	F-8
Q4400	E-7
Q4401	F-7
Q4402	D-6
Q4501	C-6
Q4502	D-6
Q4503	D-6
Q4504	C-6
Q4505	D-6
Q4506	D-6
Q4507	E-3
Q4508	E-3
Q4600	F-7
R4400	E-7
R4401	E-7
R4402	F-6
R4403	F-6
R4404	F-6
R4405	F-6
R4406	F-6
R4407	F-6
R4408	F-6
R4410	F-6
R4412	E-6
R4414	F-6
R4415	F-6
R4416	E-6
R4417	F-6
R4418	F-7
R4419	F-7
R4420	E-7
R4421	E-7
R4422	E-7
R4423	D-6
R4424	E-4
R4425	E-6
R4426	D-6
R4500	D-6
R4503	D-6
R4504	D-6
R4505	D-6
R4506	D-6
R4507	F-4
R4508	F-4
R4509	F-4
R4510	F-4
R4511	F-4
R4512	F-4
R4513	F-4
R4515	E-4
R4517	E-3
R4518	E-3
R4519	E-3
R4520	F-3
R4522	D-4
R4523	E-4
R4524	E-4
R4525	E-4
R4536	F-4
R4541	D-6
R4542	D-6
R4543	D-6
R4544	C-4
R4545	D-6
R4546	C-4
R4547	E-3
R4548	E-3
R4549	D-4
R4550	D-4
R4551	C-6
R4552	C-6
R4553	D-6
R4554	F-6
R4600	F-8
R4601	F-7
T4600	F-9


VC-199
CAMERA, LENS DRIVE, I/O, BLOCKING, ECC, TBC, CHCD, AUDIO, DV I/O, IR TRANSMITTER, RGB DECODER, MODE CONTROL
VF-117 (EVF)
CC-100 (TRANSLATION)


VF-117 BOARD (SIDE A)
VF-117 BOARD (SIDE B)
A
B
C
D
E
F
1
2
3
4
5
6
7
8
9
CN4400
IC4502
IC4500
IC4504
ND4600
D4601
D4600
1-665-766-
12
IC4501
IC4400
T4600
CN4500
1-665-766-
12
①
②
③
④
⑤
⑥
⑦
• Chip parts.
Transistor
Diode
C
B
E
6 5 4
1 2 3
4 5 6
3 2 1
4 5
3 2 1
1 2
5 4 3
3
2 1

VF-117 (EVF, POWER SUPPLY FOR EVF BACK LIGHT) SCHEMATIC DIAGRAM

— Ref. No.: VF-117 board; 30,000 series —


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
VF-117 BOARD (1/2)
CN4400 20P
EVF_GND 1
MODE_SO 2
MODE_XSCK 3
XCS_EVF_D/A 4
EVF_UNREG_GND 5
EVF_UNREG_GND 6
EVF_UNREG 7
VCO 8
EVF_13.5V 9
NC 10
G_OUT 11
EVF_4.9V 12
D_3.1V 13
EVF_GND 14
EVF_GND 15
EVF_XVD 16
EVF_B 17
EVF_G 18
EVF_R 19
EVF_XHD 20
TO VC-199 BOARD CN1000 (B TO B)
(SEE PAGE 4-43)
SO
XSCK
XCS
D_3.1V
EVF_GND
XVD
EVF_B
EVF_G
EVF_R
XHD
EVF_4.9V
VCO
EVF_13.5V
G_OUT
TO VF-117(2/3)
R4423 10
Q4402 2SD2216J-QR(TX).SO BUFFER
L4403 47uH
R4426 10k
R4425 1 2012
C4413 1u 16V TA
R4424 1 2012
XHD
EVF_R
EVF_G
EVF_B
XVD
EVF_GND
D_3.1V
XCS
SO
XSCK
EVF_XHD
EVF_R
EVF_G
EVF_B
EVF_XVD
EVF_GND
D_3.1V
XCS_EVF_D/A
MODE_SO
MODE_XSCK
TO(2/2) ①
INV_CURRENT
HD_OUT
Q4400 XP4501-TXE
R4419 120
D4400 MA6S121-(TX)
R4400 470
R4420 22k
R4401 22k
Q4400 LED DRIVE
C4410 1u B 2012
R4421 22k
R4422 470k
L4402 47uH 3225
C4400 2.2u 25V TA A
R4405 27k
R4406 150k
R4403 68k ±0.5%
R4404 68k
C4402 0.01u B
R4407 47k
R4410 270k
C4401 0.022u B
R4408 56k
R4402 220k ±0.5%
IC4400 MB3789PFV-G-BND-ER
IC4400 REG CONT
GND
OUT
VCC2
CB
CTL
FB2
-IN2
+IN2
VCC1
VREF
CT
SYNC
SCP
FB1
-IN1
+IN1
C4411 0.22u F 1608
Q4401 RN2105-TE85L RESET
C4412 0.01u B
C4403 10u 10V TA A
R4412 33k
C4404 2200p B
C4405 4.7u 6.3V TA A
C4406 0.022u B
R4414 270k
R4415 10k
R4418 1200
C4408 150p CH
R4416 330k
R4417 120k
C4407 0.01u B
C4409 0.1u B 1608
EVF_UNREG
DRIVE_PULSE
EVF_UNREG_GND
BL_LOW
FB
LED_A
LED_K
C4601 0.01u B
R4600 33k
Q4600 SWITCHING
Q4600 FX216-TL1
L4600 10uH 3225
T4600
C4604 8200p B
C4602 8200p B
C4603 8200p B
C4600 15u 16V TA B
C4605 10u F
ND4600 (BACK LIGHT)
LND1 GND
D4600 1SS250-TE85L
R4601 100
D4601 PG1101H-TR (STARTER)
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
16

•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC	➡			
PB	⇨			

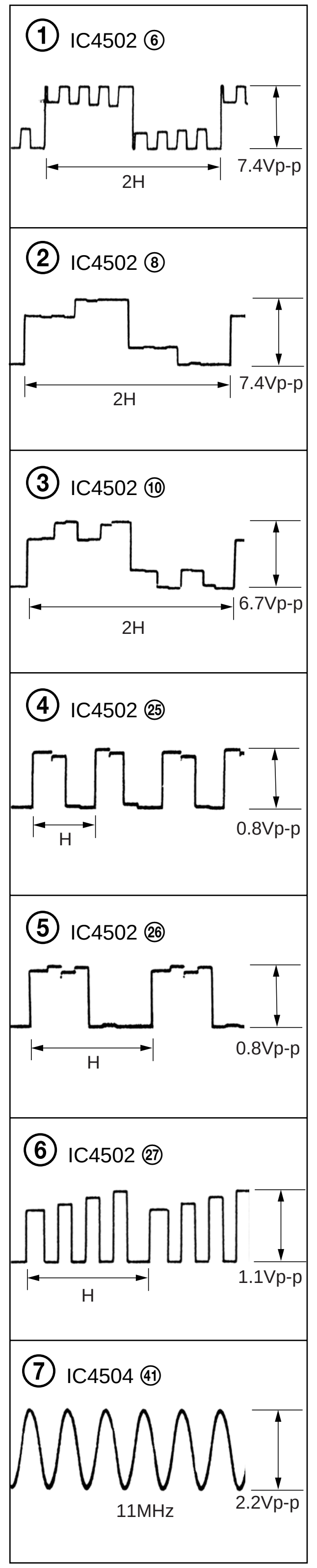
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

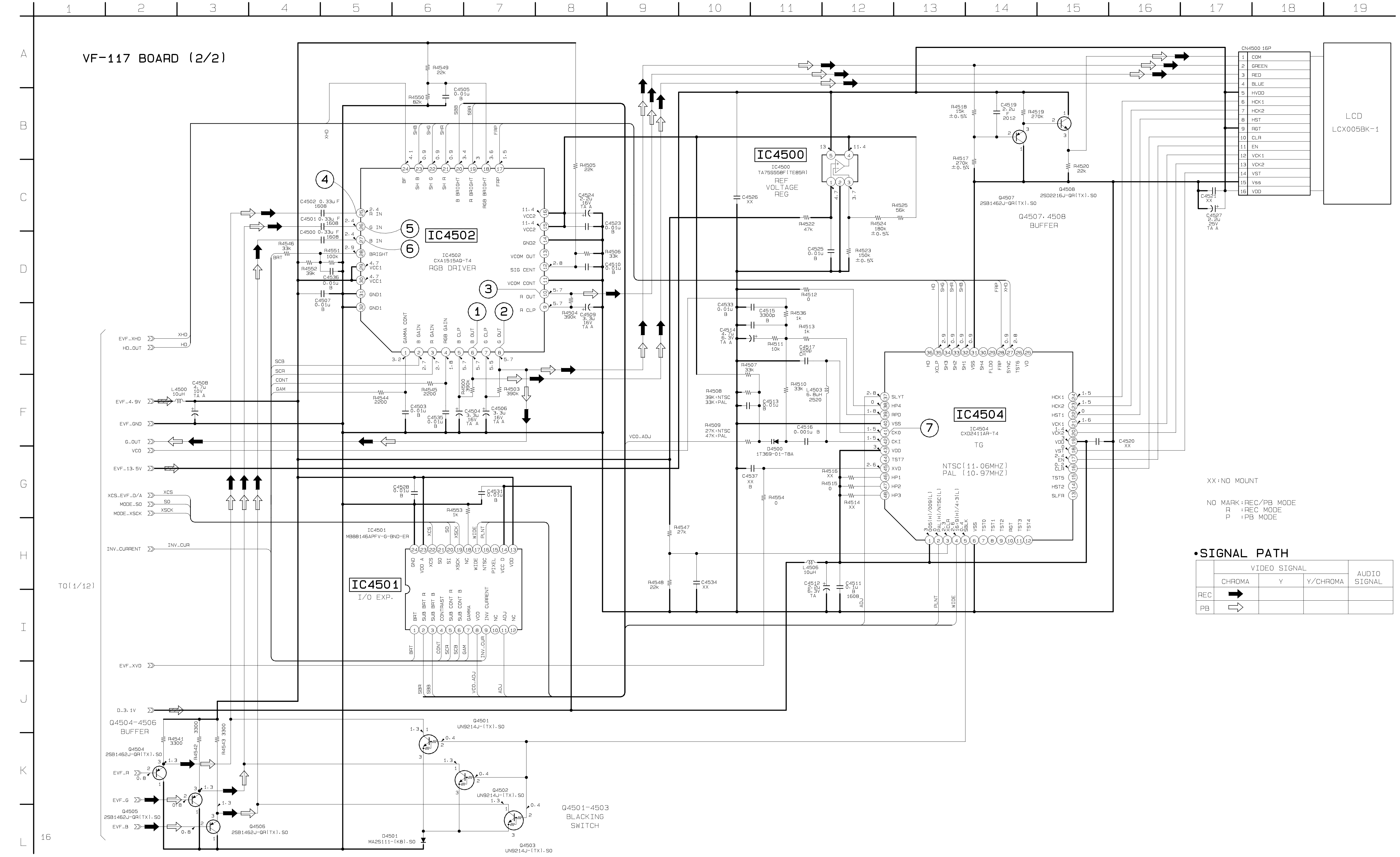
VF-117 (EVF RGB DRIVER) SCHEMATIC DIAGRAM

— Ref. No.: VF-117 board; 30,000 series —

• See page 4-90 for VF-117 BOARD printed wiring board.

VF-117 BOARD (CAMERA REC/PB)

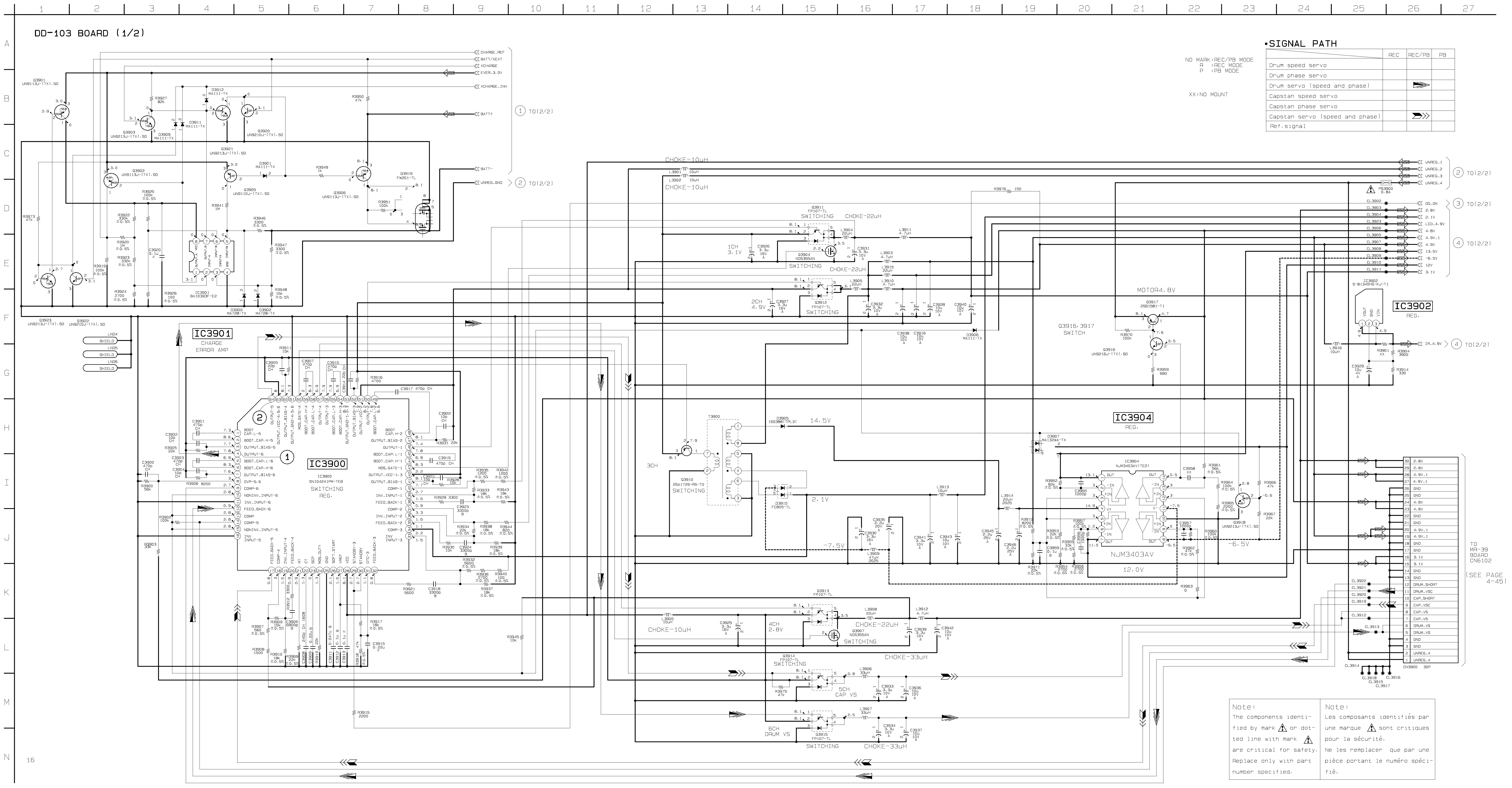



VF-117 BOARD (2/2)
IC4502
CXA1515AQ-T4
RGB DRIVER
IC4500
TA75S558F(TE85R)
REF VOLTAGE REG
IC4504
CXD2411AR-T4
TG
NTSC(11.06MHZ)
PAL (10.97MHZ)
IC4501
MB88146APFV-G-BND-ER
I/O EXP.
Q4507, 4508
BUFFER
Q4504-4506
BUFFER
Q4501-4503
BLACKING SWITCH
CN4500 16P
1 COM
2 GREEN
3 RED
4 BLUE
5 HVDD
6 HCK1
7 HCK2
8 HST
9 RGT
10 CLR
11 EN
12 VCK1
13 VCK2
14 VST
15 Vss
16 VDD
LCD
LCX005BK-1
EVF_XHD
HD_OUT
EVF_4.9V
EVF_GND
G_OUT
VCO
EVF_13.5V
XCS_EVF_D/A
MODE_S0
MODE_XSCK
INV_CURRENT
EVF_XVD
D_3.1V
EVF_R
EVF_G
EVF_B
TO(1/12)
XX:NO MOUNT
NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE
•SIGNAL PATH
VIDEO SIGNAL
CHROMA
Y
Y/CHROMA
AUDIO SIGNAL
REC
PB

DD-103 (POWER SUPPLY) SCHEMATIC DIAGRAM

— Ref. No.: DD-103 board; 30,000 series —

• See page 4-105 for DD-103 BOARD printed wiring board .


DD-103 BOARD (1/2)
IC3901
CHARGE
ERROR AMP
IC3900
SN104241PM-TEB
SWITCHING
REG.
IC3904
NJM3403AV(TE2)
REG.
NJM3403AV
IC3902
S-81340HG-KJ-T1
REG.
T3900
Q3916・3917
SWITCH
MOTOR4.8V
CHOKE-10uH
CHOKE-22uH
CHOKE-33uH
1CH 3.1V
2CH 4.9V
3CH
4CH 2.8V
5CH CAP VS
6CH DRUM VS
14.5V
2.1V
-7.5V
-6.5V
12.0V
① TO(2/2)
② TO(2/2)
③ TO(2/2)
④ TO(2/2)
TO MA-39 BOARD CN6102
(SEE PAGE 4-45)
CN3900 30P
CHARGE_REF
BATT/XEXT
XCHARGE
EVER_3.0V
XCHARGE_INH
BATT+
BATT-
UNREG_GND
UNREG_1
UNREG_2
UNREG_3
UNREG_4
PS3900
LND4
LND5
LND6
SHIELD
16

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

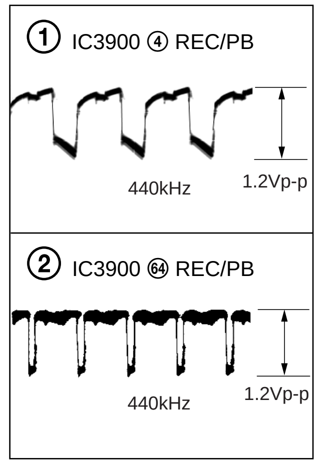
XX:NO MOUNT

•SIGNAL PATH

	REC	REC/PB	PB
Drum speed servo			
Drum phase servo			
Drum servo (speed and phase)		➡	
Capstan speed servo			
Capstan phase servo			
Capstan servo (speed and phase)		➡	
Ref.signal			

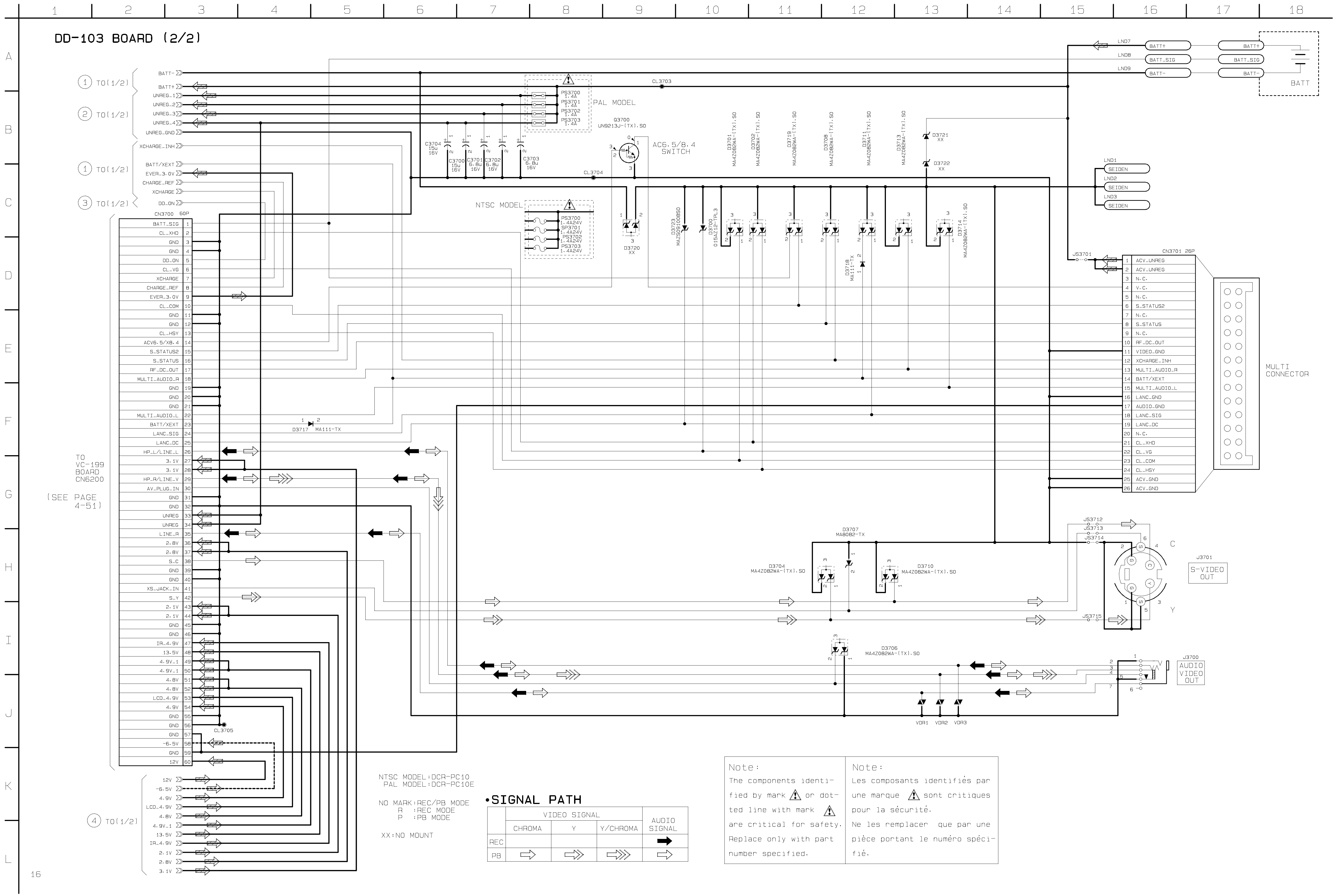
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

DD-103 BOARD



DD-103 (I/O) SCHEMATIC DIAGRAM

— Ref. No.: DD-103 board; 30,000 series —


DD-103 BOARD (2/2)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
A B C D E F G H I J K L
① TO(1/2)
② TO(1/2)
① TO(1/2)
③ TO(1/2)
④ TO(1/2)
BATT-
BATT+
UNREG_1
UNREG_2
UNREG_3
UNREG_4
UNREG_GND
XCHARGE_INH
BATT/XEXT
EVER_3.0V
CHARGE_REF
XCHARGE
DD_ON
CN3700 60P
TO VC-199 BOARD CN6200
(SEE PAGE 4-51)
PS3700
PS3701
PS3702
PS3703
PAL MODEL
NTSC MODEL
CL3703
CL3704
CL3705
Q3700 UN9213J-(TX).SO
AC6.5/8.4 SWITCH
C3704
C3700
C3701
C3702
C3703
D3701
D3702
D3705
D3708
D3711
D3713
D3714
D3718
D3720 XX
D3721 XX
D3722 XX
D3723
D3717 MA111-TX
D3707 MA8082-TX
D3704 MA4Z082WA-(TX).SO
D3710 MA4Z082WA-(TX).SO
D3706 MA4Z082WA-(TX).SO
VDR1 VDR2 VDR3
LND7 LND8 LND9
BATT+
BATT_SIG
BATT-
BATT
LND1 LND2 LND3
SEIDEN
JS3701
CN3701 26P
MULTI CONNECTOR
JS3712 JS3713 JS3714 JS3715
J3701
S-VIDEO OUT
C
Y
J3700
AUDIO VIDEO OUT
16

NTSC MODEL:DCR-PC10
PAL MODEL:DCR-PC10E

NO MARK:REC/PB MODE
R :REC MODE
P :PB MODE

XX:NO MOUNT

•SIGNAL PATH

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
REC				➡
PB	⇨	⇨》	⇨》》	⇨

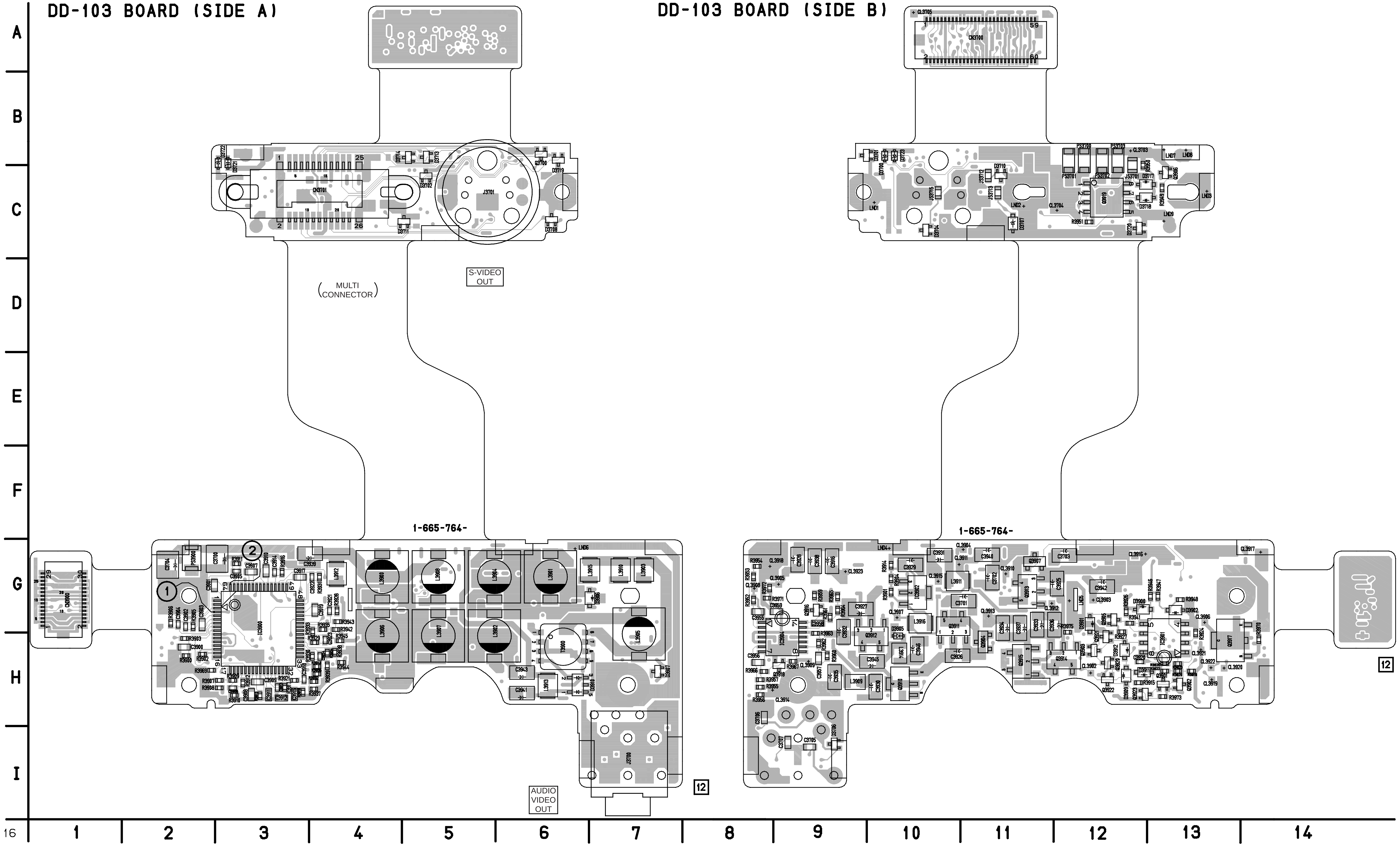
Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

DD-103 (POWER SUPPLY, I/O) PRINTED WIRING DIAGRAM

— Ref. No.: DD-103 board; 30,000 series —

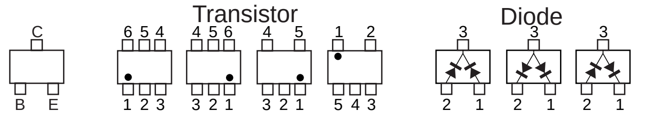
There are few cases that the part printed on this diagram isn't mounted in this model.

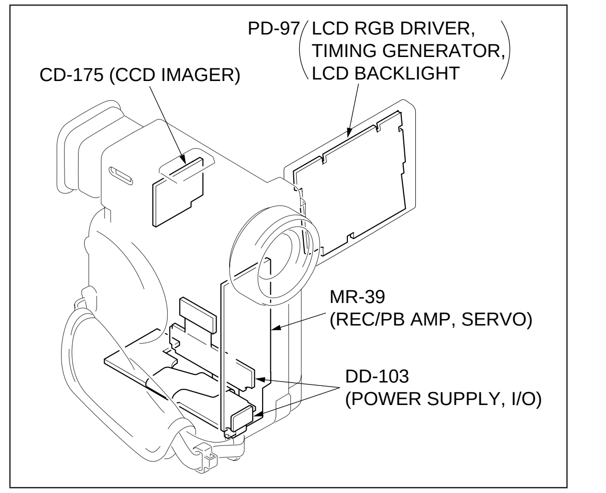

DD-103 BOARD (SIDE A)
DD-103 BOARD (SIDE B)
MULTI CONNECTOR
S-VIDEO OUT
AUDIO VIDEO OUT
1-665-764-
1-665-764-
12
12
A
B
C
D
E
F
G
H
I
1
2
3
4
5
6
7
8
9
10
11
12
13
14
16

DD-103 BOARD

C3700	G-2	C3939	G-3	IC3902	G-10	Q3911	G-10	R3931	G-4
C3701	G-10	C3940	G-11	IC3904	H-8	Q3912	G-9	R3932	H-4
C3702	G-11	C3941	H-6			Q3913	G-11	R3933	G-4
C3703	G-11	C3942	G-12	J3700	I-7	Q3914	H-12	R3934	H-4
C3704	G-2	C3943	H-6	J3701	C-5	Q3915	H-11	R3935	G-4
C3900	H-2	C3945	H-9			Q3916	G-9	R3936	H-4
C3901	G-2	C3946	H-10	JS3701	B-11	Q3917	G-13	R3937	H-4
C3902	G-2	C3955	G-8	JS3712	C-11	Q3918	H-8	R3938	H-4
C3903	G-2	C3956	H-8	JS3713	C-11	Q3919	C-12	R3939	H-4
C3904	G-2	C3957	H-9	JS3714	C-10	Q3920	H-12	R3940	H-4
C3905	G-3	C3959	G-8	JS3715	C-10	Q3921	G-12	R3941	G-12
C3906	H-3					Q3922	H-12	R3942	G-4
C3907	G-3	CN3700	A-11	L3900	G-4	Q3923	H-12	R3943	G-4
C3908	H-3	CN3701	C-4	L3901	G-6			R3944	H-4
C3909	H-3	CN3900	G-1	L3902	G-5	R3900	H-2	R3945	H-4
C3910	G-3			L3904	G-7	R3902	H-2	R3946	G-12
C3911	H-3	D3700	B-10	L3905	G-5	R3903	G-2	R3947	G-13
C3912	H-3	D3701	B-9	L3906	G-4	R3904	G-10	R3948	G-13
C3913	H-3	D3702	C-5	L3907	G-5	R3905	G-2	R3949	C-13
C3914	G-3	D3704	C-10	L3908	G-5	R3906	G-2	R3950	B-12
C3915	H-3	D3706	I-9	L3909	H-9	R3907	H-2	R3951	C-12
C3916	G-9	D3707	C-11	L3910	G-7	R3908	H-2	R3952	G-8
C3917	G-3	D3708	C-6	L3911	G-10	R3909	H-3	R3953	G-8
C3918	H-3	D3710	C-11	L3912	G-4	R3910	H-3	R3954	G-8
C3919	G-4	D3711	C-4	L3913	H-6	R3911	G-3	R3955	H-8
C3920	H-12	D3713	B-5	L3914	H-10	R3912	H-3	R3956	H-8
C3921	G-4	D3714	B-5	L3915	G-6	R3913	H-3	R3957	H-8
C3922	G-4	D3717	C-12	L3916	G-10	R3914	G-10	R3959	G-9
C3923	G-4	D3718	C-12			R3915	H-12	R3960	H-9
C3924	H-4	D3719	B-6	PS3700	B-12	R3916	G-3	R3961	G-9
C3925	G-11	D3723	B-10	PS3701	B-12	R3917	H-3	R3962	H-9
C3926	H-10	D3900	G-12	PS3702	B-12	R3918	H-3	R3963	G-9
C3927	G-9	D3901	G-12	PS3703	B-12	R3919	H-13	R3964	G-9
C3928	G-9	D3902	G-13	PS3900	G-2	R3920	H-13	R3965	G-9
C3929	G-10	D3905	G-10			R3921	H-3	R3966	H-8
C3930	H-10	D3906	G-6	Q3700	B-6	R3922	H-13	R3967	H-8
C3931	G-10	D3907	H-7	Q3901	H-13	R3923	H-13	R3969	H-2
C3932	G-9	D3909	H-12	Q3902	H-13	R3924	G-13	R3970	G-14
C3933	G-11	D3910	H-6	Q3903	H-12	R3925	H-13	R3971	G-8
C3934	G-11	D3911	H-12	Q3904	H-11	R3926	G-12	R3973	H-13
C3935	H-9	D3912	H-12	Q3905	G-12	R3927	G-12	R3975	G-12
C3936	G-11			Q3906	B-13	R3928	G-4	R3979	G-10
C3937	G-11	IC3900	G-3	Q3907	G-11	R3929	H-4		
C3938	G-9	IC3901	G-13	Q3910	H-10	R3930	H-4	T3900	H-6

- **Chip parts.**


Transistor
Diode
C
B
E
6 5 4
1 2 3
4 5 6
3 2 1
4 5
3 2 1
1 2
5 4 3
3
2 1
3
2 1
3
2 1


PD-97 (LCD RGB DRIVER, TIMING GENERATOR, LCD BACKLIGHT)
CD-175 (CCD IMAGER)
MR-39 (REC/PB AMP, SERVO)
DD-103 (POWER SUPPLY, I/O)

SECTION 5
ADJUSTMENTS

5-1. CAMERA SECTION ADJUSTMENT

When performing adjustments, refer to the layout diagrams for adjustment related parts beginning from page 5-32.

NTSC model : DCR-PC10
PAL model : DCR-PC10E

1-1. PREPARATIONS BEFORE ADJUSTMENT

1-1-1. List of Service Tools

- Oscilloscope
- Adjustment screw driver
- Regulated power supply
- Color monitor
- Vectorscope
- Digital voltmeter
- Pattern generator

Ref. No.	Name	Parts Code	Usage
J-1	Filter for color temperature correction (C14)	J-6080-058-A	Auto white balance adjustment/check White balance adjustment/check
J-2	ND filter 1.0 ND filter 0.3	J-6080-808-A J-6080-818-A	White balance check White balance check
J-3	Pattern box PTB-450	J-6082-200-A	Camera adjustment in general
J-4	Color chart for pattern box	J-6020-250-A	Camera adjustment in general
J-5	Siemens star chart	J-6080-875-A	For checking the flange back
J-6	Adjustment remote commander (RM-95 upgraded). Note	J-6082-053-B	Camera recorder adjustment in general
J-7	Clear chart	J-6080-621-A	GAIN, AUTO and white balance adjustments
J-8	CPC-6 jig	J-6082-370-A	For adjusting the video section For adjusting the viewfinder
J-9	CPC-6 terminal board jig	J-6082-371-A	For adjusting the video section For adjusting the viewfinder
J-10	I/O board-1 jig	J-6082-372-C	For connecting the adjustment remote commander
J-11	Extension cable (18P, 0.5 mm)	J-6082-374-A	For extension between the MR-39 board (CN3100) and the capstan motor
J-12	IR receiver jig	J-6082-383-A	For adjusting the IR transmitter

Note: If the microprocessor IC in the adjustment remote commander is not the new microprocessor (UPD7503G-C56-12), the pages cannot be switched.
In this case, replace with the new microprocessor (8-759-148-35).

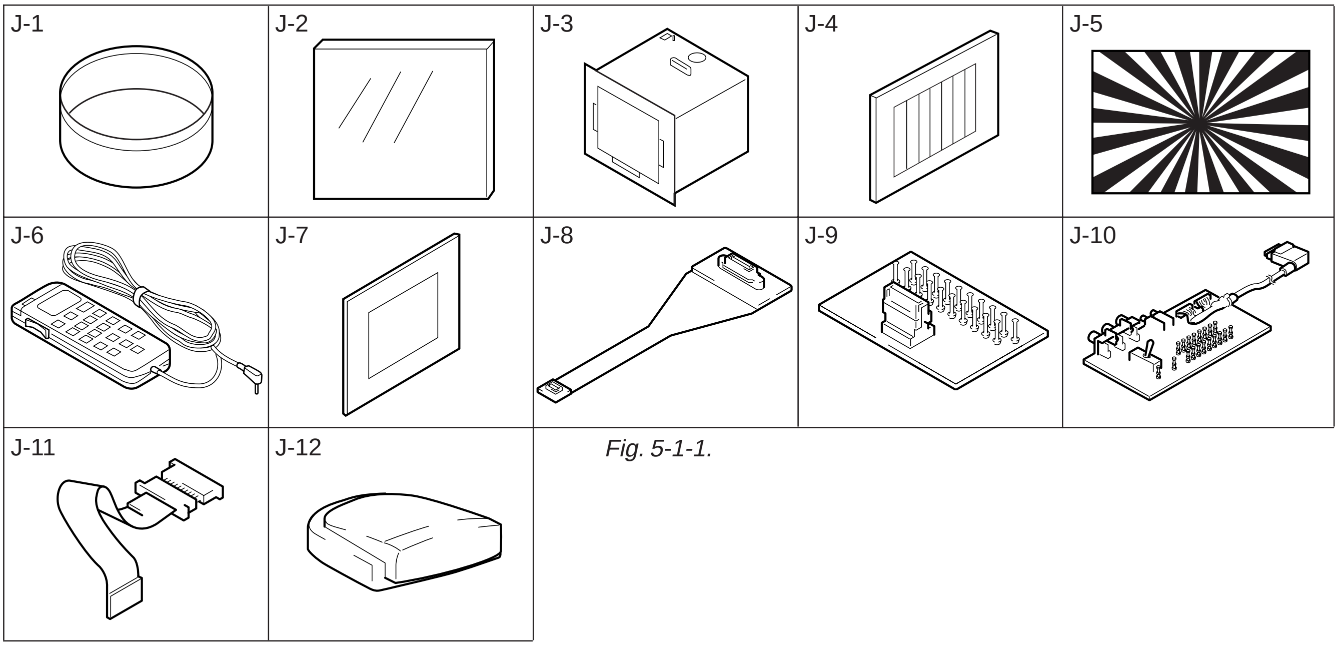

J-1
J-2
J-3
J-4
J-5
J-6
J-7
J-8
J-9
J-10
J-11
J-12

Fig. 5-1-1.

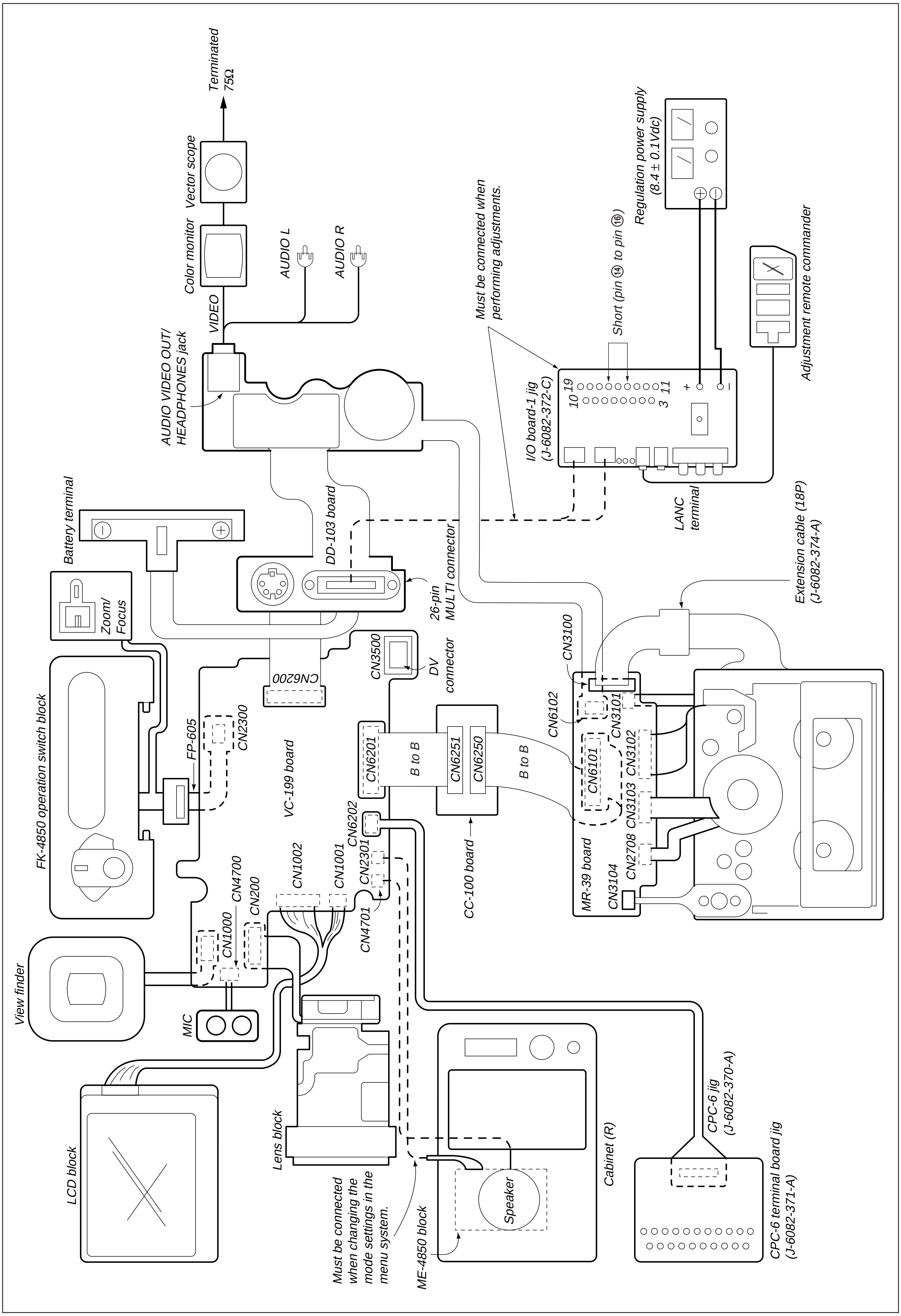

Terminated
75Ω
Vector scope
Color monitor
VIDEO
AUDIO L
AUDIO R
AUDIO VIDEO OUT/
HEADPHONES jack
Must be connected when
performing adjustments.
Regulation power supply
(8.4 ± 0.1Vdc)
Short (pin ⑭ to pin ⑯)
19
10
11
3
+
–
I/O board-1 jig
(J-6082-372-C)
Adjustment remote commander
LANC
terminal
Battery terminal
DD-103 board
26-pin
MULTI connector
Zoom/
Focus
FK-4850 operation switch block
FP-605
CN2300
CN6200
CN3500
DV
connector
Extension cable (18P)
(J-6082-374-A)
CN3100
CN6102
CN3101
CN6101
CN3102
CN3103
CN2708
CN3104
MR-39 board
VC-199 board
CN6201
B to B
CN6251
CN6250
B to B
CC-100 board
CN6202
CN2301
CN4701
CN1001
CN1002
CN4700
CN200
CN1000
View finder
MIC
LCD block
Lens block
Must be connected
when changing the
mode settings in the
menu system.
ME-4850 block
Speaker
Cabinet (R)
CPC-6 jig
(J-6082-370-A)
CPC-6 terminal board jig
(J-6082-371-A)

Fig. 5-1-2

1-1-2. Preparations

Note 1: For details of how to remove the cabinet and boards, refer to "2. Removal".

Note 2: When performing only the adjustments, the lens block and boards need not be disassembled. (Except for the GUM PLL adjustment and the original oscillation adjustment)

1) Connect the equipment for adjustments according to Fig. 5-1-2.
2) By setting the "Forced Camera Power ON" mode, the camera power can be turned on with the FK-4850 operation switch block (power switch, start/stop switch, VTR function switch) removed.
   If removing the FK-4850 operation switch block, remove the following connector.
   1. VC-199 board CN2300 (20P, 0.5 mm)
   After completing adjustments, be sure to exit the "Forced Camera Power ON" mode.

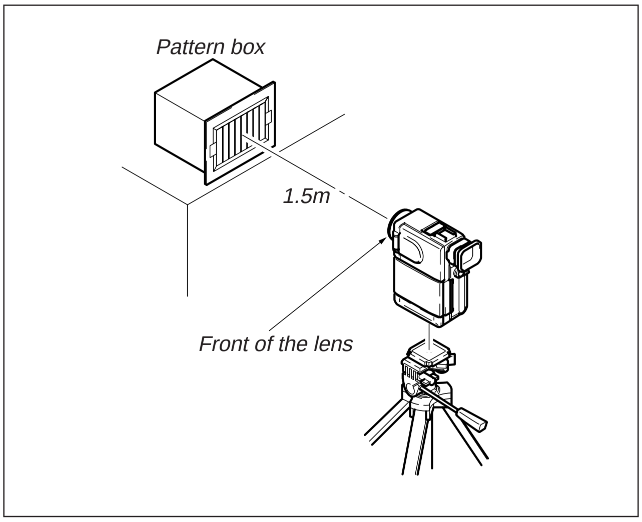

Pattern box
1.5m
Front of the lens

Fig. 5-1-3

Note 1: Setting the "Forced Camera Power ON" Mode

1) Set page: 0, address: 01, data: 01.
2) Set page: D, address: 10, data: 01 and press the PAUSE button of the remote commander.

(To use the "Forced Camera Power ON" Mode and "DDS' display of EVF and LCD" Mode together, set page: D, address: 11, data: 02 .)

To release the mode by setting page: D, address: 11, data: 00 and pressing the PAUSE button.

Note 2: Exiting the "Forced Camera Power ON" Mode

1) Set page: 0, address: 01, data: 01.
2) Set page: D, address: 10, data: 00 and press the PAUSE button of the remote commander.
3) Set page: 0, address: 01, data: 00.

1-1-3. Power Supply Procedure

Apply power voltage via I/O board-1 jig (J-6082-372-C) to 26-pin MULTI connector on the set as shown in Fig. 5-1-4.
Short-circuit between pins ⑭ and ⑯.

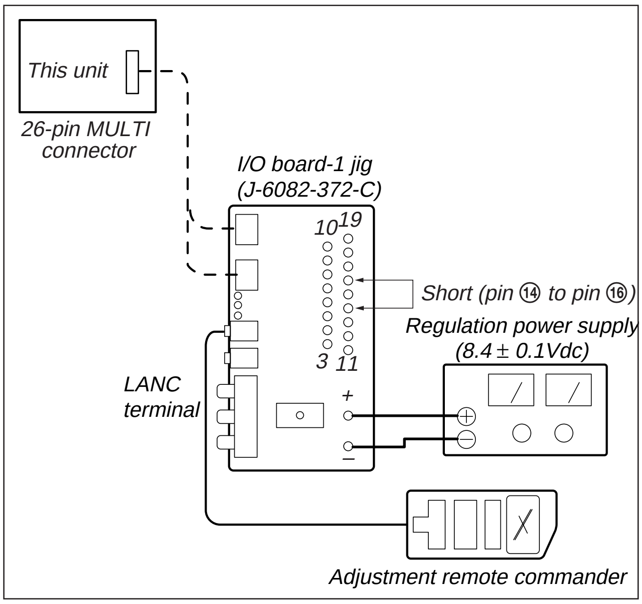

This unit
26-pin MULTI connector
I/O board-1 jig (J-6082-372-C)
10
19
Short (pin ⑭ to pin ⑯)
Regulation power supply (8.4 ± 0.1Vdc)
3
11
LANC terminal
+
–
Adjustment remote commander

Fig. 5-1-4

1-1-4. Precautions

1. Setting the Switches

Unless otherwise specified, set the switches as follows and perform adjustments without loading the cassette.

1. Camera/VTR (or Player) Power Switch (FK-4850 block) .... Camera
2. Digital Zoom (Menu Screen) .... Off
3. STEADY SHOT Switch (Menu Screen) .... Off
4. Focus Switch (FK-4850 block) .... Manual
5. White balance Switch (Menu Screen) .... Auto
6. Program AE Switch (Menu Screen) .... Auto
7. 16 : 9 WIDE Switch (Menu Screen) .... Off

2. Adjustment Sequence

Adjust in the given order.

3. Subject

1) Color bar chart (Standard picture frame)

- Adjust the picture frame as shown in Fig. 5-1-5.
- Adjust camera zooming and direction until the camera output waveform on the oscilloscope shown in Fig. 5-1-5 (a) and the color picture on the monitor TV shown in Fig. 5-1-5 (b) have been acquired.
- Maintain this setup until adjustment is complete.

2) White pattern (Standard picture frame)
Remove the color bar chart from the pattern box and adjust the camera setup until the white pattern picture frame is the same size and same position as the color bar chart (the standard picture frame).

Color bar chart standard picture frame

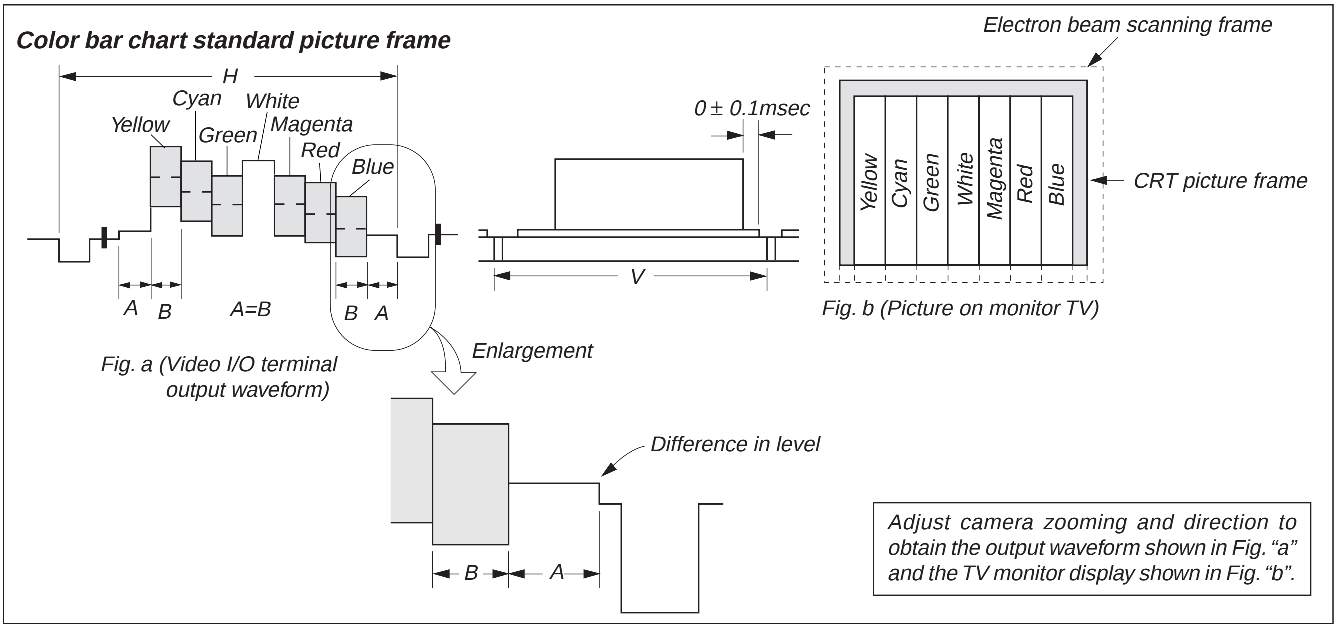

H
Yellow
Cyan
Green
White
Magenta
Red
Blue
A
B
A=B
B
A
Enlargement
Difference in level
B
A
0 ± 0.1msec
V
Electron beam scanning frame
Yellow
Cyan
Green
White
Magenta
Red
Blue
CRT picture frame

Fig. a (Video I/O terminal output waveform)

Fig. b (Picture on monitor TV)

Adjust camera zooming and direction to obtain the output waveform shown in Fig. "a" and the TV monitor display shown in Fig. "b".

Fig. 5-1-5

3) Chart for flange back adjustment
Join together a piece of white A0 size paper (1189 mm × 841 mm) and a piece of black paper to make the chart shown in Fig. 5-1-6.

Note: Use a non-reflecting and non-glazing vellum paper. The size must be A0 or larger and the joint between the white and black paper must not have any undulations.

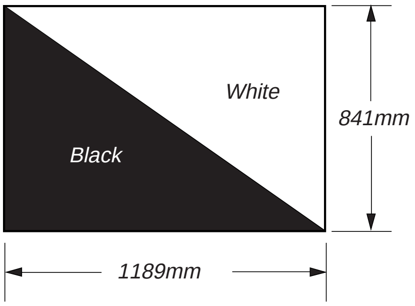

White
Black
841mm
1189mm

Fig. 5-1-6

1-2. CAMERA SYSTEM ADJUSTMENTS

1-2-1. Adjustment Points When Major Parts Have Been Replaced

When the CCD imager or lens block is replaced, adjust the items indicated by ○ in the following table.

	When the CCD imager is replaced	When the lens block is replaced
HALL adjustment		○
Flange back adjustment	○	○
IRIS IN/OUT adjustment	○	○
MAX GAIN adjustment	○	
Color reproduction adjustment	○	
Auto white balance reference data input	○	
Auto white balance adjustment	○	

Note: Check that the following adjustment has been completed before performing “Camera Check Adjustments”.

1. “Initializing the Page D Data” and “Changing the Page D Data” of “System Control System Adjustments” of “Video Section Adjustments”.
2. “Base Band Block Adjustment” and “Clock Adjustment” of “Video System Adjustments” of “Video Section Adjustments”.

1-2-2. Initialization of Page F data

Note 1: Execute the initialization of page F only when the non-volatile memory (VC-199 board IC202 EEPROM) is replaced.

Note 2: If the page F data has been initialized, all adjustment items of the camera section must be executed again.

Initializing procedure:

Order	Page	Address	Data	Procedure
1				Turn OFF and ON the main power supply. (Preparation)
2	6	00	01	Set the data.
3	6	01	2D:NTSC 2F:PAL	After setting the data, press the PAUSE button.
4	6	03	01	After setting the data, press the PAUSE button.
5	6	02		Confirm that the data is 01.

Works required after initialization

Order	Page	Address	Data	Procedure
1	6	00	00	Set the data.
2				Turn off the main power supply. (End)
3				Perform the next item “1-2-3. Page F Data Modifications”, then execute all adjustment items of the camera section.

1-2-3. Modification of Page F data

If the F page data has been initialized, change the data as shown in the following table by manual input.

Note 1: The fixed values in the table are not shown because they are different in destination. When changing the data of page F, copy the data built in the same model.

Note 2: Before changing the data, set page : 6, address: 00, data : 01.

Note 3: To write in the non-volatile memory (EEPROM) after changing the data, press the PAUSE button of the adjustment remote commander each time to set the new data.

Note 4: After changing the data, set page : 6, address : 00, data : 00. Also perform Camera System Adjustments , Servo System Adjustments, Video System Adjustments, and Audio System Adjustments.

Address	Data	Address	Data
00	Fixed	8A	3B
18	7C	8F	FF
50	Fixed	90	(F0)[EE]
51	39	91	Fixed
53	Fixed	92	Fixed
56	47	A4	C2
5B	A9	A6	A0
63	03	CA	F2
71	Fixed	CB	EE
72	Fixed	CC	CE
73	Fixed	CD	E8
76	25	CE	14
7E	00	D0	E4
80	07	D1	40
81	0A	D2	ED
82	0C	D3	52
83	12	D4	10
84	17	D5	74
85	22	D6	20
86	25	D7	F9
87	28	FC	26
88	2B	FD	A3
89	34		

No mark:	Common
( ):	NTSC model
[ ]:	PAL model

1-2-4. PLL Adjustment (VC-199 Board)[Procedure-1]

Subject	Arbitrary
Measurement Point	DDS display of EVF or LCD, or page: A display data of adjustment remote commander
Measuring Instrument	
Adjustment Page	F
Adjustment Address	4D
Specification	87–(8F)–97

( ) : Center value

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	D	11	02	After setting the data, press the PAUSE button.
3	6	00	01	Set the data.
4	6	04	17	Set the data.
5	F	4D		Change the data until of DDS display on page: A display data to the specified value.
6	6	04	00	Set the data.
7	6	00	00	Set the data.
8	D	11	00	After setting the data, press the PAUSE button.
9	0	01	00	Set the data. (End)

1-2-5. PLL Adjustment (VC-199 Board)[Procedure-2]

Subject	Arbitrary
Measurement Point	R244 (CL207), GND (CL211)
Measuring Instrument	Digital voltmeter
Adjustment Page	F
Adjustment Address	4D
Specification	1.6 ± 0.1V

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	6	00	01	Set the data. (Preparation)
2	F	4D		Change the data of page: F, address: 4D, and set the DC voltage to the specified value.
3				Press the PAUSE button.
4	6	00	00	Set the data. (End)

1-2-6. Original Oscillation Adjustment (VC-199 Board)

Purpose:	Adjusts 36 MHz crystal controlled oscilloscope for synchronizing clock.
Adjustment error:	Loss of synchronization or loss of color.

Subject	Arbitrary
Measurement Point	Pin ㉘ of IC200 (CL200)
Measuring Instrument	Frequency counter
Adjustment Page	F
Adjustment Address	1C
Specified Value	f = 18000000 ± 90Hz (NTSC) f = 18000000 ± 90Hz (PAL)

Note: "PLL adjustment" has already been done.

Adjusting method:

Order	Page	Address	Data	Procedure
1	6	00	01	Set the data. (Preparation)
2	8	1C		Change the data of page: F, address: 1C, and set the clock frequency (f) to the specified value.
3				Press the PAUSE button.
4	6	00	00	Set the data. (End)

1-2-7. HALL Adjustment

Purpose: Variation of the HALL element outputs is removed by adjusting amplifier gain and offset. The HALL elements detect the lens iris position.

Adjustment error: Oscillation of lens iris, or incorrect white balance indoor and outdoor.

Subject	Not required
Measurement Point	DDS display of EVF or LCD, or page: A display data of adjustment remote commander
Measuring Instrument	
Adjustment Page	F
Adjustment Address	1E, 1F
Specification	15 to 19h when iris is opened. (Note 1) 88 to 8Ch when iris is closed. (Note 2)

Note 1: Set page : 6, address : 01, data : 01, and press the PAUSE button of the adjustment remote commander.

Note 2: Set page : 6, address : 01, data : 03 and press the PAUSE button of the adjustment remote commander.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation 1)
2	D	11	02	After setting the data, press the PAUSE button.
3	6	00	01	Set the data. (Preparation 2)
4	6	04	03	Set the data.
5	6	01	03	After setting the data, press the PAUSE button.
6	F	1E	40	After setting the data, press the PAUSE button. Read the data appearing on the DDS display (Note 3). The read-out data is W_2.
7	F	1E	30	After setting the data, press the PAUSE button. Read the data appearing on the DDS display (Note 3). The read-out data is W_1.
8	6	01	01	After setting the data, press the PAUSE button.
9	F	1E	30	After setting the data, press the PAUSE button. Read the data appearing on the DDS display (Note 3). The read-out data is K_1.
10	F	1E	40	After setting the data, press the PAUSE button. Read the data appearing on the DDS display (Note 3). The read-out data is K_2.
11				Convert the data W_1, W_2, K_1 and K_2 into the decimal numbers. The result decimal numbers are W_1', W_2', K_1' and K_2'. (Use page 5-73 “Hexadecimal-Decimal Conversion Table”.)
12				$A' = W_2' + K_1' - W_1' - K_2'$ .... equation 1 $B' = W_1' - K_1'$ .... equation 2 $X_1' = \frac{1840 + (48 \times A') - (16 \times B')}{A'}$ .... equation 3
13				Convert the decimal number X_1' to the hexadecimal number to obtain X_1. (Round the number X_1 to count fractions of 0.5 and over as a unit and cut away the rest.)
14	F	1E		Set the data X_1 (obtained at step 13).
15				Press the PAUSE button.
16	F	1F		Change the data until 17 appears on the DDS display.
17				Press the PAUSE button.
18	6	01	03	After setting the data, press the PAUSE button.
19				If the DDS display shows the data in the range from 88 to 8C, it indicates the end of adjustment, and proceed to the item “Processing after Adjustments”. If it is not, use the DDS display data as W_0 and proceed to step 20 and followings.

Note 3: Lower two digits of the data which is displayed at the right bottom of he EVF or TV monitor, or the lower 2 digits of the 4 digit display data of page A of the adjustment remote commander.

$\text{A : XX : }\underline{\text{XX}} \rightarrow W_1, W_2,$ ......

Order	Page	Address	Data	Procedure
20				Convert the value W_0 to a decimal value to obtain the value W_0'.
21				Calculate the value X_2' from the following equation (decimal calculation). $C' = W_0' - B'$ .... equation 4 $X_2' = \frac{(115 - B') \times (X_1' - 48) + 48 \times (C' - 21)}{(C' - 23)}$ .... equation 5 (The values X_1' and B' are obtained from the equations 2 and 3 in step 12.)
22				Convert the value X_2' to a hexadecimal number to obtain X_2. (Round the number X_2 to count fractions of 0.5 and over as a unit and cut away the rest.)
23	F	1E		Set the data X_2 (which is the result of calculation in step 22).
24				Press the PAUSE button.
25	F	1F		Change data until 8A appears on the DDS display.
26				Press the PAUSE button.
27	6	01	01	After setting the data, press the PAUSE button.
28				Confirm that the DDS display shows the data in the range from 15 to 19.

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	01	00	After setting the data, press the PAUSE button.
2	6	04	00	After setting the data, press the PAUSE button.
3	6	00	00	Set the data (End 2)
4	D	11	00	After setting the data, press the PAUSE button.
5	0	01	00	Set the data (End 1)

Related adjustments:
“IRIS IN/OUT adjustment”

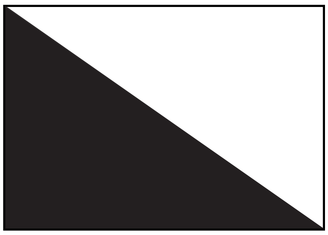
1-2-8. Flange Back Adjustment (1)

Purpose:	Automatic flange back adjustment of inner focus lens.
Adjustment error:	Loss of focus when switched between auto focus and manual focus.

Subject	Chart for flange back adjustment (Placed 2000 mm in front of the lens with illumination of 300 ± 50 lux.)
Measurement Point	Confirm the focus on monitor TV
Measuring Instrument	
Adjustment Page	F
Adjustment Address	24 to 29, 38 to 3C

Note 1: Set the STEADY SHOT switch (MENU display) to OFF and the D ZOOM (MENU display) to OFF.

Note 2: Perform the “temperature data reading” immediately after completion of flange back adjustment without elapse of time.



(Chart for flange back adjustment)
(See page 5-4)
Fig. 5-1-7

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Check that the center of the flange back adjustment chart coincides with that of the display on the monitor at both ends : TELE end and the WIDE end of the zoom lens.
2	6	00	01	Set the data. (Preparation)
3	F	24 25 26 27 28 29 38 39 3A 3B 3C	2C 17 78 1D FB 12 23 00 19 00 27	Confirm data of each address.
4	6	02		Confirm that the data is 00.
5	6	01	13	After setting the data, press the PAUSE button.
6	6	01	15	After setting the data, press the PAUSE button. The adjustment data is automatically input to page : F, addresses : 24 to 29, 38 to 3C.
7	6	02		Confirm that the data is 01.

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	00	00	Set the data.
2				Turn the main power supply (8.4 V) OFF, then ON. (If this step is not performed, the camera will be out of focus.)
3				Perform “1-2-9. Flange Back Adjustment (2)”.

1-2-9. Flange Back Adjustment (2)

Perform this adjustment after performing “Flange Back Adjustment (1)”.

Subject	Subject more than 500 m away (In case of a subject less than 500 m away, that should be subjects with clear contrast such as most distant buildings, etc.)
Adjustment Page	F
Adjustment Address	24 to 29, 38 to 3C

Adjusting Method:

Order	Page	Address	Data	Procedure
1				Set the IRIS to open. (Use a ND filter)
2				Set the zoom lens to the TELE end and expose a subject that is more than 500 m away (Subject s with clear contrast such as buildings, etc.). (Nearby subjects less than 500 m away should not be in the screen.)
3	6	00	01	Set the data.
4	6	02		Confirm the data is 00.
5	6	01	13	After setting the data, press the PAUSE button.
6	6	01	29	After setting the data, press the PAUSE button. (Adjustment data will automatically be input to page: F, address: 24 to 29, , 38 to 3C.)
7	6	02		Confirm that the data is 01.

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	00	00	Set the data.
2				Turn the main power supply (8.4 V) OFF, then ON. (If this step is not performed, the camera will be out of focus.)
3				Perform “1-2-10. Flange Back Check”.

1-2-10. Flange Back Check

Subject	Siemens star (Placed 2000 mm in front of the lens with illumination of about 200 lux.)
Measurement Point	Confirm focus on monitor TV
Measuring Instrument	
Specification Value	Picture must have good focus at both TELE and WIDE ends.

Note 1: Set the STEADY SHOT switch (MENU display) to OFF and the D ZOOM (MENU display) to OFF.

Note 2: When the auto focus is ON, the lens can be checked if it is focused or not by observing the data on page A of the adjustment remote commander.

1) Set page: 6, address: 04, data: 0F.
2) Page A shows the state of the focus.

A : 00 : XX → 01 : Focused
00 : Unfocused

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Place a Siemens star at 2 m in front of lens.
2				Set the AUTO FOCUS to OFF.
3				To open the IRIS, decrease the luminous intensity to the Siemens star up to a point before noise appears on the image.
4	6	40	02	After setting the data, press the PAUSE button.
5	6	41	01	After setting the data, press the PAUSE button.
6				Shoot the Siemens star at TELE end.
7				Set the AUTO FOCUS to ON.
8				Confirm that the image is in focus.
9	6	21	10	Set the data.
10				Shoot the Siemens star at WIDE end.
11				Confirm that the image is in focus.
12	6	21	00	After setting the data, press the PAUSE button.
13	6	04	00	After setting the data, press the PAUSE button.
14	6	40	00	After setting the data, press the PAUSE button.
15	6	41	00	After setting the data, press the PAUSE button.

1-2-11. Picture Frame Setting

Subject	Color bar chart standard picture frame (1.5 m from the front of the lens)
Measurement Point	VIDEO output terminal (Terminated in 75)
Measuring Instrument	Oscilloscope and monitor TV
Specification Value	A=B, C=D, t=0 ± 0.1msec

Note: Set the STEADY SHOT switch (MENU display) to OFF and the D ZOOM (MENU display) to OFF.

Setting procedure:

Order	Procedure
1	Turn OFF the auto focus.
2	Adjust the focus using the focus knob.
3	Adjust direction and ZOOM of camera so that the picture frame is adjusted as specified by Fig. 5-1-8, Fig. 5-1-9 and Fig. 5-1-10.
4	Write down markings on the picture frame on the monitor screen. If the “color bar chart standard picture frame” or “white pattern standard picture frame” is specified in the following adjustment items, obtain this picture frame.

Confirm with an oscilloscope

1. Horizontal rate

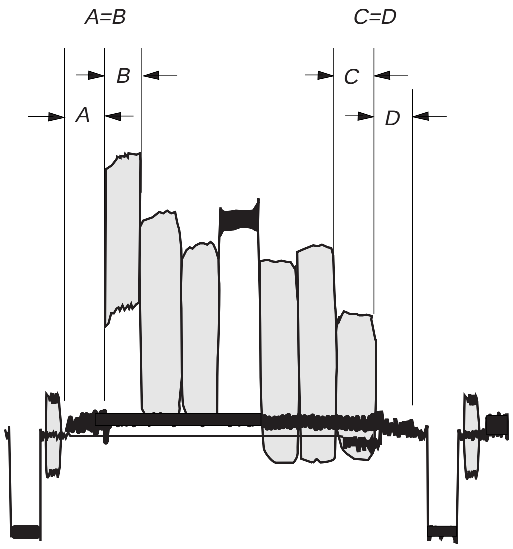


Fig. 5-1-8

2. Vertical rate

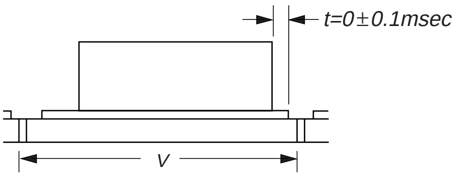


Fig. 5-1-9

Confirm on TV monitor (underscanned display)

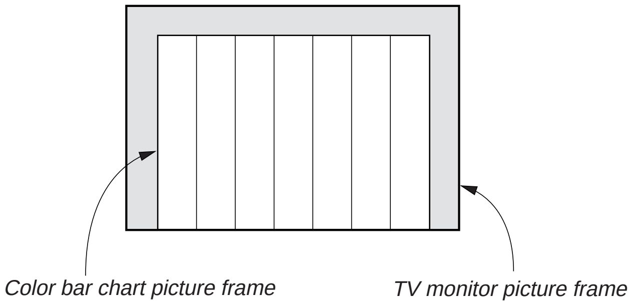


Fig. 5-1-10

1-2-12. Color Reproduction Adjustment

Purpose: Adjust the three primary color matrix coefficients for correct color reproduction.

Adjustment error: Poor color reproduction.

Subject	Color bar chart standard picture frame
Measurement Point	VIDEO output terminal (Terminated in 75Ω)
Measuring Instrument	Vectorscope
Adjustment Page	F
Adjustment Address	2E, 30, 8F, 90
Specification Value	Each spot must be located within the specified color reproduction zone on a vectorscope display.

Note: Set the STEADY SHOT switch (MENU display) to OFF and the D ZOOM (MENU display) to OFF.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	6	00	01	Set the data. (Preparation)
2	6	01	3D	After setting the data, press the PAUSE button.
3	F	16	3F	After setting the data, press the PAUSE button. (Setting)
4	F	2E, 30 8F, 90		Change the data so that red, yellow, spot must be located within the specified color reproduction zone on a vectorscope display. Press the PAUSE button for each address.

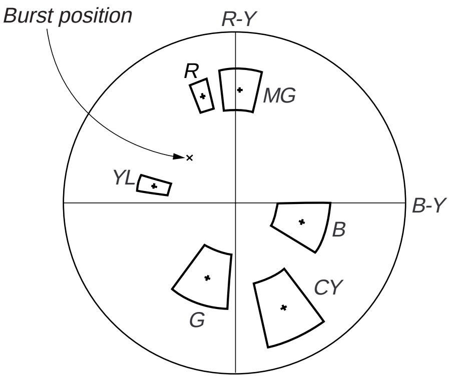


Fig. 5-1-11 (a) PAL MODEL

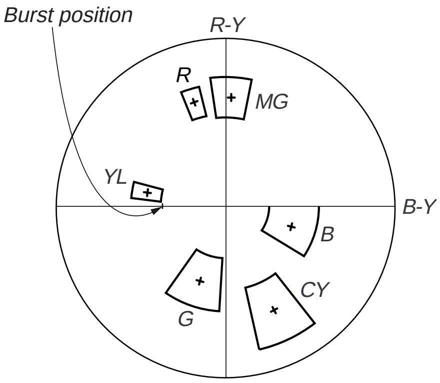


Fig. 5-1-11 (b) NTSC MODEL

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	01	00	After setting the data, press the PAUSE button.
2	6	00	00	Set the data. (End)

Related Adjustments:
“Auto White Balance Reference Data Input”
“Auto White Balance Adjustment”

1-2-13. Color Reproduction Check

Purpose:
Adjustment error: Poor color reproduction.

Subject	Color bar chart standard picture frame
Measurement Point	VIDEO output terminal (Terminated in 75Ω)
Measuring Instrument	Vectorscope
Specification Value	Each spot must be located within the specified color reproduction zone on a vectorscope display.

Note: Set the STEADY SHOT switch (MENU display) to OFF and the D ZOOM (MENU display) to OFF.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	6	01	3D	After setting the data, press the PAUSE button.
2				Each spot must be located within the specified color reproduction zone on a vectorscope display.
3	6	01	00	After setting the data, press the PAUSE button.

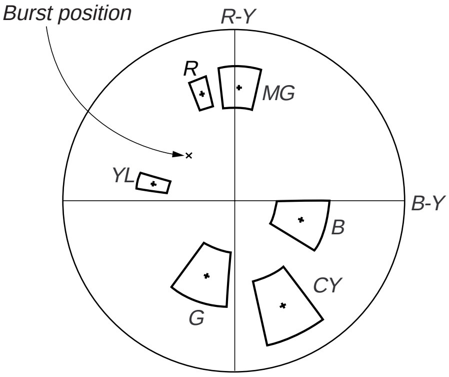


Fig. 5-1-12 (a) PAL MODEL

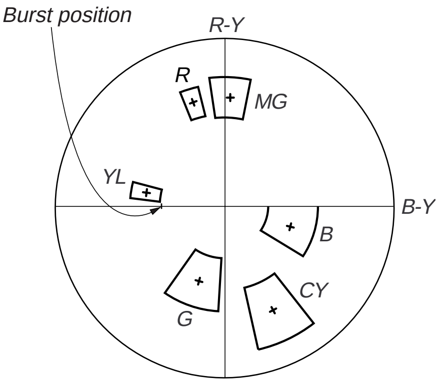


Fig. 5-1-12 (b) NTSC MODEL

1-2-14. IRIS IN/OUT Adjustment

Purpose: Measure the light level and write into EEPROM for indoor/outdoor identification in auto white balance.

Adjustment error: Incorrect white balance.

Subject	Clear chart (Color bar standard picture frame)
Measurement Point	DDS display on the EVF or monitor TV, or the page A data display on the adjustment remote commander.
Measuring Instrument	
Adjustment Page	F
Adjustment Address	36, 37

Note 1: Set the STEADY SHOT switch (MENU display) to OFF and the D ZOOM (MENU display) to OFF.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation 1)
2	D	11	02	After setting the data, press the PAUSE button.
3	6	00	01	Set the data. (Preparation 2)
4	6	04	06	Set the data.
5	6	40	02	After setting the data, press the PAUSE button.
6	6	01	0B	After setting the data, press the PAUSE button. Read the data appearing on the DDS display (Note 2), or the display data of page A on the adjustment remote commander (Note 3). The upper 2 digits are D_1 data while the lower 2 digits are D_2.
7				Convert the data D_1 into the decimal numbers. The result decimal number is D_1' (Use page 5-73 “Hexadecimal-Decimal Conversion Table”.)
8				Calculate the following equation (decimal number calculation) to obtain D_3'. When $D_2 \geqq$ D0h, $D_3' = D_1' - 21$ ···························· equation 1. When $D_2 <$ D0h, $D_3' = D_1' - 22$ ···························· equation 2.
9				Convert the decimal number D_3' to the hexadecimal number to obtain D_3.
10	F	36		Set the data D_3 (obtained at step 9), and press the PAUSE button.
11	6	01	09	After setting the data, press the PAUSE button. Read the data appearing on the DDS display (Note 2), or the display data of page A on the adjustment remote commander (Note 3). The uppers 2 digits are D_4 data while the lower 2 digits are D_5.
12				Convert the data D_4 into the decimal numbers. The result decimal number is D_4' (Use page 5-73 “Hexadecimal-Decimal Conversion Table”.)
13				Calculate the following equation (decimal number calculation) to obtain D_6' When $D_5 \geqq$ F0h, $D_6' = D_4' - 13$ ···························· equation 3. When $D_5 <$ F0h, $D_6' = D_4' - 14$ ···························· equation 4.
14				Convert the decimal number D_6' to the hexadecimal number to obtain D_6.
15	F	37		Set data D_6 (obtained at step 14), and press the PAUSE button.

Note 2: The lower 4 digit data shown on the right bottom of EVF or monitor display. If the values in the lower digit change rapidly and cannot read it, record the data on tape once. Play it back in STILL mode and take an average value.

Note 3: The 4 digit data display on page : A of adjustment remote commander.

A : XX : XX

→ Lower 2 digits

→ Upper 2 digits

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	01	00	After setting the data, press the PAUSE button.
2	6	40	00	After setting the data, press the PAUSE button.
3	6	04	00	Set the data.
4	6	00	00	Set the data. (End 2)
5	D	11	00	After setting the data, press the PAUSE button.
6	0	01	00	Set the data. (End 1)

1-2-15. MAX GAIN Adjustment

Purpose: Sets the minimum illumination level.
Adjustment error: Normal video level cannot be obtained at low illumination (dark).

Subject	Clear chart (Color bar standard picture frame)
Measurement Point	DDS display of EVF or LCD, or page: A display data of adjustment remote commander
Measuring Instrument	
Adjustment Page	F
Adjustment Address	2C
Specification Value	70 to 78 (NTSC) 6C to 74 (PAL)

Note: Set the STEADY SHOT switch (MENU display) to OFF and the D ZOOM (MENU display) to OFF.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation 1)
2	D	11	02	After setting the data, press the PAUSE button.
3	6	00	01	Set the data. (Preparation 2)
4	6	04	01	After setting the data, press the PAUSE button.
5	6	40	02	After setting the data, press the PAUSE button.
6	6	56	40	After setting the data, press the PAUSE button.
7	6	01	19	After setting the data, press the PAUSE button.
8	F	2C		Change the data of page: F, address :2C and adjust so that the DDS display data lies within the specified value.
9				Press the PAUSE button.

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	01	00	After setting the data, press the PAUSE button.
2	6	56	00	After setting the data, press the PAUSE button.
3	6	40	00	After setting the data, press the PAUSE button.
4	6	04	00	Set the data.
5	6	00	00	Set the data. (End 2)
6	D	11	00	After setting the data, press the PAUSE button.
7	0	01	00	Set the data. (End 1)

1-2-16. Auto White Balance Reference Data Input

Purpose:	Adjust the reference white balance at 3200K, and calibrate the camera from white balance variations.
Adjustment error:	The pre-set white balance will become poor.

Subject	Clear chart (Color bar standard picture frame)
Adjustment Page	F
Adjustment Address	20 to 23

Note 1: Perform “Color Reproduction Adjustment” before this adjustment.

Note 2: Check that the of page: 6, address: 02 is 00. If not, turn the power of the unit OFF/ON.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Turn OFF the main power of the unit then back ON.
2				Shoot a Clear chart with the standard picture frame.
3	6	00	01	Set the data. (Preparation)
4				Wait for 2 seconds.
5	6	01	11	After setting the data, press the PAUSE button.
6	6	01	0D	After setting the data, press the PAUSE button. (When the standard data is taken in, the data will be automatically input to addresses 20 to 23 of page F.)
7	6	02		Confirm that the data is 01.
8				Perform “Auto White Balance Adjustment”.

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	01	00	After setting the data, press the PAUSE button.
2	6	00	00	Set the data. (End)

1-2-17. Auto White Balance Adjustment

Purpose:	Adjust the outdoor auto white balance output data for the correct value.
Adjustment error:	Poor white balance at outdoor.

Subject	Clear chart (Color bar standard picture frame)
Filter	Color temperature correction filter C14
Measurement Point	DDS display on the EVF or monitor TV, or the page A data display on the adjustment remote commander.
Measuring Instrument	
Adjustment Page	F
Adjustment Address	34, 35
Specification Value	R ratio = 2C40 h to 2CC0 h B ratio = 6040 h to 60C0 h

Note 1: Make this adjustment after “Auto White Balance Reference Data Input” is completed.

Note 2: Use the pattern box adjusted correctly.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Put on the color temperature correction filter C14 on the lens.
2	0	01	01	Set the data. (Preparation 1)
3	D	11	02	After setting the data, press the PAUSE button.
4	6	00	01	Set the data. (Preparation 2)
5	6	01	3F	After setting the data, press the PAUSE button.
6	6	04	04	Set the data.
7	F	34		Change data until the R ratio data on the DDS display becomes the specification value.
8				Press the PAUSE button.
9	6	04	05	Set the data.
10	F	35		Change data until the B ratio data on the DDS display becomes the specification value.
11				Press the PAUSE button.

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	01	00	After setting the data, press the PAUSE button.
2	6	04	00	Set the data.
3	6	00	00	Set the data. (End 2)
4	D	11	00	After setting the data, press the PAUSE button.
5	0	01	00	Set the data. (End 1)

1-2-18. White Balance Check

Subject	White pattern standard picture frame
Filter	Color temperature correction filter C14 ND filter 1.0 and 0.3
Measurement Point	VIDEO output terminal (Terminated in 75Ω)
Measuring Instrument	Vectorscope
Specification Value	Fig. 5-1-13. A ~ C

Check procedure:

Order	Page	Address	Data	Procedure	Condition
1				Check that the lens is not covered by either filter.	
2	6	01	0F	After setting the data, press the PAUSE button.	
3				Check that the white luminance point is located within the circle shown in Fig. 5-1-13 (A).	Without filter
4	6	01	23	After setting the data, press the PAUSE button.	
5				Put the C14 filter on the lens.	
6				Check that the white luminance point is located within the circle shown in Fig. 5-1-13 (B).	C14 filter
7				Remove the C14 filter and put ND filter 1.3 (1.0+0.3) on the lens.	ND Filter 1.3
8				Check that the white luminance point stopped moving, and then remove the ND filter 1.3.	Without filter
9				Check that the white luminance point is located within the circle shown in Fig. 5-1-13 (C).	

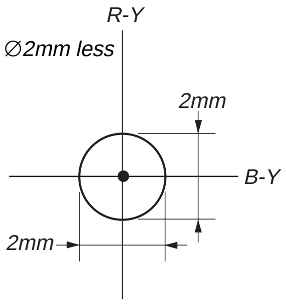


Fig. 5-1-13 (A)

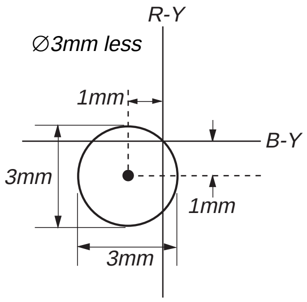


Fig. 5-1-13 (B)

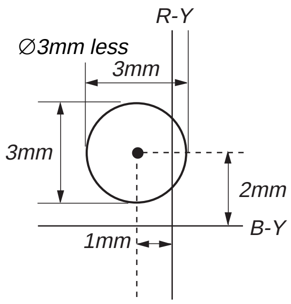


Fig. 5-1-13 (C)

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	01	00	After setting the data, press the PAUSE button.

1-2-19. Velocity Sensor Sensitivity Adjustment

The “Velocity Sensor Sensitivity Adjustment” is necessary only when the gyro sensor is replaced. If microprocessors or circuit board is not replaced, this adjustment is not necessary. Make operation check only.

Subject	CAMERA standby
Adjustment page	F
Adjustment address	41, 42
Specified value	Shoot an arbitrary object at TELE end, and confirm that the STEADY SHOT function works correctly.

Setting the Switches:

STEADY SHOT swtich (MENU display) .... ON
D ZOOM switch (MENU display) .... OFF

Note 1: Record the sensitivity data which is indicated on the replacement gyro sensor before installing it. Record not only the sensitivity data but also where (horizontal correction must be installed to the horizontal correction circuit and the vertical correction sensor must be installed to the vertical correction circuit) the replacement sensor is attached. If different type of sensor is used, picture can vibrate vertically or horizontally during camera-shake correction. After replacement, make adjustment as described below.

Note 2: Caution on gyro sensor
The gyro sensor has the high precision vibrator inside. If the sensor is dropped, balance of the vibrator is lost resulting in faulty operation. Handle the sensor carefully.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	6	00	01	Set the data. (Preparation)
2				Read the sensor sensitivity written on SE500 of the CD-175 board, and take this as S_{500}.
3				Read the sensor sensitivity written on SE501 of the FP-615 flexible board, and take this as S_{501}.
4				Calculate D_{41}' and D_{42}' using the following equation (decimal calculation). NTSC model $D_{41}' = \frac{99}{S_{501}}$ $D_{42}' = \frac{110}{S_{500}}$ PAL model $D_{41}' = \frac{23}{S_{501}}$ $D_{42}' = \frac{130}{S_{500}}$
5				Convert D_{41}' and D_{42}' into hexadecimal digits, to obtain D_{41} and D_{42}. (Round off decimal points)
6	F	41		Set page: F, address: 41, data: D_{41}, and press the PAUSE button of the adjustment remote commander.
7	F	42		Set page: F, address: 42, data: D_{42}, and press the PAUSE button of the adjustment remote commander.

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	6	00	00	After setting the data, press the PAUSE button. (End)
2				Shoot an arbitrary object at TELE end, and confirm that the steady shot function works correctly.

1-3. COLOR ELECTRONIC VIEWFINDER SYSTEM ADJUSTMENTS

Note 1: The backlight (fluorescent tube) is driven by a high voltage AC power supply.
Therefore, be careful not to touch the backlight holder as you will receive an electric shock.

Note 2: When replacing the LCD unit, ensure there will be no damages by static electricity.

Switch setting:

PANEL OPEN switch
(S2300 on VC-199 board) .... Pressed condition

Power Supply Voltage

Adjust the power supply so that the battery terminal voltage becomes 8.4 ± 0.1 Vdc, unless specified otherwise.

Adjusting connector:

Some measuring points for adjusting the viewfinder are concentrated at CN6202 of the VC-199 board. Connect the measuring equipments via CPC-6 jig (J-6082-370-A) and CPC-6 terminal board jig (J-6082-371-A). The following table lists the pin numbers and signal names of CN6202.

CN6202 of VC-199 board

Pin No.	Signal Name	Pin No.	Signal Name
1	GND	2	RF MONITOR
3	ENV OUT	4	REF OUT
5	JSWP	6	LOCK
7	EQ IN	8	VCC1
9	AGC IN	10	VCC2
11	GND	12	C1ERP
13	TRACK ID	14	TDOB
15	FLTD	16	EVF CHECK1
17	TMS	18	TCK
19	EVF VG	20	TDI

1-3-1. EVR Initial Data Input

Mode	VTR stop
Signal	Any video signal
Adjustment page	D
Adjustment address	70 to 7E, 87 to 8F, 99

Note: The fixed values in the table are not shown because they are different in destination. When inputting the EVR initial data, copy the data built in the same model.

Input procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	D	70	A8	To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.
		71	BD	
		72	61	
		73	93	
		74	93	
		75	BB	
		76	6F	
		77	70	
		78	70	
		79	77	
		7A	8A	
		7B	00	
		7C	00	
		7D	00	
		7E	88	
		7F	00	
		87	Fixed	
		88	2B	
		89	00	
		8A	25	
		8B	1A	
		8C	00	
		8D	00	
		8E	12	
		8F	00	
		99	3A	
3	0	01	00	Set the data.

1-3-2. VCO Adjustment (VF-117 Board)

Purpose:	To make the TG frequency constant (amplitude).
Adjustment error:	VF picture will lose sync when error is large.

Mode	VTR stop
Signal	No signal
Measurement Point	VC-199 board CN6202 pin ⑯ (EVF CHECK1)
Measuring Equipment	Oscilloscope (DC range)
Adjustment Page	D
Adjustment Address	76
Specification Value	A=1.80 ± 0.05V

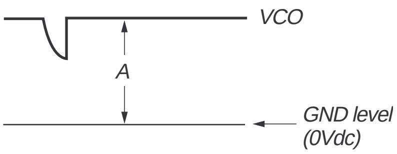


Fig. 5-1-14

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2				Check the GND level on an oscilloscope in DC mode.
3	D	76		Change the data until the VCO voltage (A) becomes the specification value.
4				Press the PAUSE button.
5	0	01	00	Set the data. (End)

1-3-3. BRIGHT Adjustment (VF-117 Board)

Purpose:	Adjust brightness of EVF screen (appearance).
Adjustment error:	The EVF picture will be close to saturated picture (white washing) or black compression.

Mode	VTR stop
Signal	Absolutely black signal
Measurement Point	CN6202 pin ⑲ (EVF VG) on VC-199 board
Measuring Equipment	Oscilloscope
Adjustment Page	D
Adjustment Address	7A
Specification	A=7.1 ± 0.1Vp-p

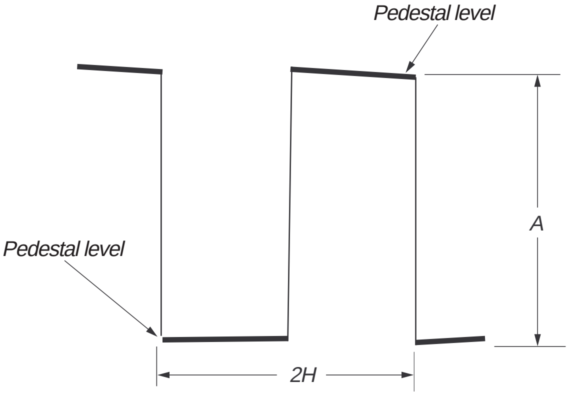


Fig. 5-1-15

Connection:

1) Connect CN6202 pin ⑲ and pin ① (EVF GND) using a 680Ω resistor (1-249-415-11).

Adjustment Procedure:

Order	Page	Address	Data	Procedure
1	2	11	04	Set the data.
2	2	10	03	Set the data.
3	0	01	01	Set the data. (Preparation)
4	D	7A		Change the data until the voltage difference (A) between the inverted waveform's pedestal and the non-inverted waveform's pedestal satisfies the specification.
5				Press the PAUSE button.
6	2	10	00	Set the data.
7	2	11	00	Set the data.
8	0	01	00	Set the data. (End)
9				Check that the specified value of “CONTRAST Adjustment” is satisfied, if not, perform “CONTRAST Adjustment”.

Related adjustment items:
“CONTRAST Adjustment”

1-3-4. CONTRAST Adjustment (VF-117 Board)

Purpose:	Adjust contrast of the EVF screen.
Adjustment error:	The EVF picture becomes dull (white washing) or close to saturated image.

Mode	VTR stop
Signal	30% white signal
Measurement Point	CN6202 pin ⑲ (EVF VG) on VC-199 board
Measuring Equipment	Oscilloscope
Adjustment Page	D
Adjustment Address	72
Specification	A=1.35 ± 0.1Vp-p (NTSC) A=1.25 ± 0.1Vp-p (PAL)

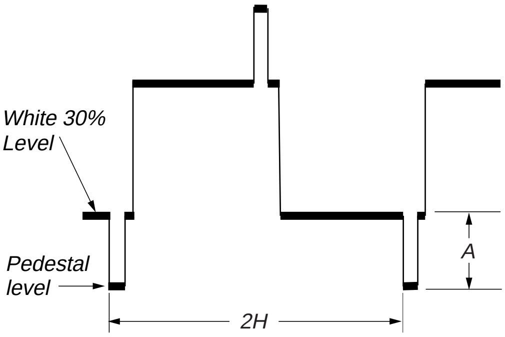


Fig. 5-1-16

Connection:

1) Connect CN6202 pin ⑲ and pin ① (EVF GND) using a 680Ω resistor (1-249-415-11).

Adjustment Procedure:

Order	Page	Address	Data	Procedure
1	2	10	02	Set the data.
2	2	11	04	Set the data.
3	0	01	01	Set the data. (Preparation)
4	D	72		Change the data until the voltage difference (A) between the 30% all white signal and the pedestal satisfies the specification.
5				Press the PAUSE button.
6	2	11	00	Set the data.
7	2	10	00	Set the data.
8	0	01	00	Set the data. (End)
9				Check that the specified value of “Bright Adjustment” is satisfied, if not, perform “Bright Adjustment”.

1-3-5. Backlight Current Consumption Adjustment (VF-117 Board)

Purpose:	Set brightness of the back light (fluorescent lamp) to a constant level.
Adjustment error:	The EVF screen will become too dark or too bright.

Mode	VTR stop
Signal	Absolutely black signal
Measurement Point	CN6202 pin ⑲ (EVF VG) on VC-199 board
Measuring Equipment	Oscilloscope
Adjustment Page	D
Adjustment Address	77
Specification	50.0 ± 1.0 mV

Note 1: Make 6.0 ± 0.1Vdc at pins ① and ② ACV-UNREG of MULTI connector (CN3701).

Note 2: During performing this adjustment, nothing is connected between pins ⑲ (EVF VG) of VC-199 board CN6202 and ① (GND) or ⑪ (GND) of DD-103 board CN3701. And measure the waveform at pin ⑲ correctly.

Note 3: When the oscilloscope is connected to other equipment, disconnect them.
Make the metallic portions of oscilloscope not to contact the other equipment.

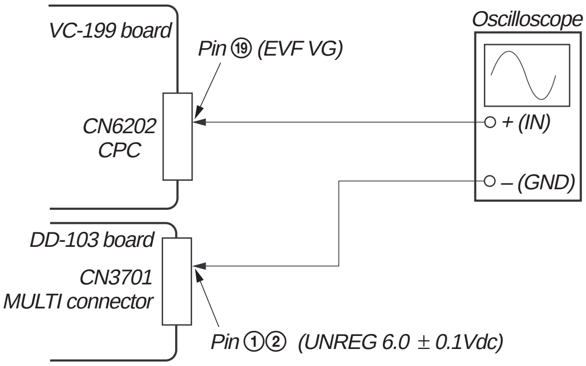

VC-199 board
Pin ⑲ (EVF VG)
Oscilloscope
CN6202
CPC
+ (IN)
– (GND)
DD-103 board
CN3701
MULTI connector
Pin ①② (UNREG 6.0 ± 0.1Vdc)

Fig. 5-1-17

Adjustment Procedure:

Order	Page	Address	Data	Procedure
1	2	10	03	Set the data.
2	2	11	04	Set the data.
3	0	01	01	Set the data.
4	D	77		Change the data of page: D, address : 77, and set the voltage (A) between the GND level and low level of EVF VG waveform to the specified value.
5				Press the PAUSE button.
6	2	11	00	Set the data.
7	2	10	00	Set the data.
8	0	01	00	Set the data.

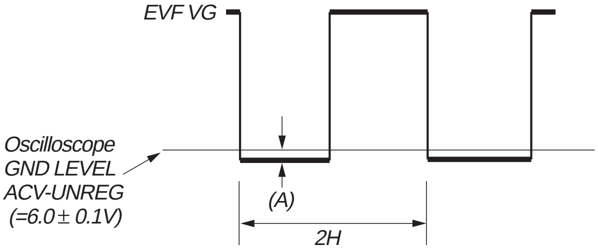

EVF VG
Oscilloscope
GND LEVEL
ACV-UNREG
(=6.0± 0.1V)
(A)
2H

Fig. 5-1-18

1-3-6. White Balance Adjustment

Purpose:	Calibrate the white balance.
Adjustment error:	The color reproduction of the EVF screen becomes poor.

Mode	VTR stop
Signal	30% white signal
Measurement Point	Check white balance on the EVF screen.
Measuring Equipment	
Adjustment Page	D
Adjustment Address	70, 71
Specification	The EVF screen must not have any colors.

Adjustment Procedure:

Order	Page	Address	Data	Procedure
1	2	10	02	Set the data.
2	2	11	04	Set the data.
3	0	01	01	Set the data. (Preparation)
4				Confirm that the EVF screen has not color at all.
5	D	70, 71		If the EVF screen has any colors, change the data until the EVF screen has any colors.
6				Press the PAUSE button.
7	2	11	00	Set the data.
8	2	10	00	Set the data.
9	0	01	00	Set the data. (End)

1-4. LCD SYSTEM ADJUSTMENTS

Note 1: The backlight (fluorescent lamp) is driven by high voltage AC power supply.
Therefore, be careful not to touch the back light holder with hand or you will receive an electric shock.

Note 2: When replacing the LCD unit, be careful not to damage the LCD unit with static electricity.

Note 3: “BRIGHTNESS”
(+, – keys) .... Center position of level indication
Menu display (Video mode)
Depth of panel color .... Center of level

Preparation:

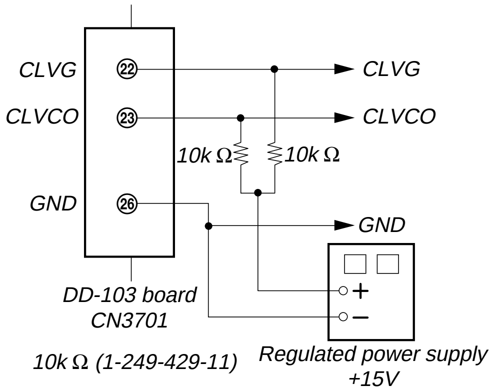


Fig. 5-1-19

1-4-1. LCD Initial Data Input

Mode	VTR stop
Signal	No signal
Adjustment page	D
Adjustment address	80 to 86, 8E, 8F, C0 to CF

Input procedure:

Order	Page	Address	Data	Procedure
1	6	00	01	Set the data. (Preparation)
2	D	80	38	To write in the non-volatile memory (EEPROM), press the PAUSE button of the adjustment remote commander each time to set the data.
		81	00	
		82	Fixed	
		83	Fixed	
		84	00	
		85	00	
		86	Fixed	
		8E	12	
		8F	00	
		C0	B6	
		C1	C5	
		C2	AE	
		C3	BB	
		C4	71	
		C5	91	
		C6	97	
		C7	D1	
		C8	C0	
		C9	B0	
		CA	B0	
		CB	B0	
		CC	94	
		CD	55	
		CE	22	
		CF	22	
3	6	00	00	Set the data.

Note: The fixed values in the table are not shown because they are different in destination. When inputting the LCD initial data, copy the data built in the same model.

1-4-2. 15.5 V Adjustment (PD-97 Board)

Purpose: Adjust the power voltage driven LCD correctly.

Subject	Anything
Measurement Point	IC6001 pin ② (CL6004)
Measuring Equipment	Digital voltmeter
Adjusting Element	RV6000
Specification Value	15.50 ± 0.05 V

Note 1: PD-97 board CN5601
a) Confirm 8.4 ± 0.1V between Pins ③ (PANEL UNREG) and ① (PANEL UNREG GND).
b) Confirm 4.90 ± 0.05V between Pins ④ (LCD 4.9V) and ① (PANEL UNREG GND).

Note 2: LCD panel turns on.

Adjustment Procedure:

Order	Procedure
1	Adjust RV6000 until the DC voltage satisfies the specification.

1-4-3. VCO Adjustment (PD-97 Board)

Purpose: To make the TG frequency constant (amplitude).
Adjustment error: VF picture will lose sync when error is large.

Mode	VTR stop
Signal	No signal
Measurement Point	CN3701 pin ㉓ (CL-VCO) on DD-103 board (Note)
Measuring Equipment	Oscilloscope (DC range)
Adjustment Page	D
Adjustment Address	C5
Specification Value	A=2.43 ± 0.05V

Note : Pull-up CL-VCO terminal +15V with 10kΩ resistor as shown in preparation Fig. 5-1-19 (See page 5-27).

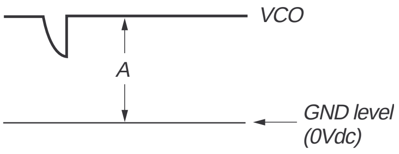


Fig. 5-1-20

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2				Check the GND level on an oscilloscope in DC mode.
3	D	C5		Change the data until the VCO voltage (A) becomes the specification value.
4				Press the PAUSE button.
5	0	01	00	Set the data. (End)

1-4-4. BRIGHT Adjustment (PD-97 Board)

Purpose: Adjust brightness of LCD screen (appearance)

Adjustment error: The LCD picture will be close to saturated picture (white washing) or black compression.

Mode	VTR stop
Signal	Absolutely black signal
Measurement Point	CN3701 pin ㉒ (CL VG) on DD-103 board (Note)
Measuring Equipment	Oscilloscope
Adjustment Page	D
Adjustment Address	C1
Specification	A=7.50 ± 0.05 Vp-p

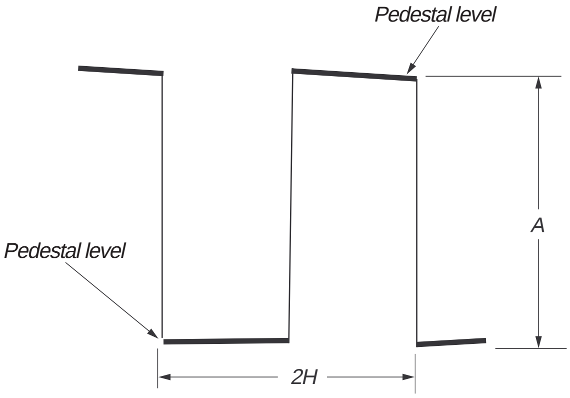


Fig. 5-1-21

Note 1: Pull-up CL-VG terminal +15V with 10kΩ resistor as shown in preparation Fig. 5-1-19 (See page 5-27).

Adjustment Procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	2	10	03	Set the data.
3	D	C1		Change the data until the voltage difference (A) between the inverted waveform's pedestal and the non-inverted waveform's pedestal satisfies the specification.
4				Press the PAUSE button.
5	2	10	00	Set the data.
6	0	01	00	Set the data. (End)

Note 2: Check that the specified value of “CONTRAST Adjustment” is satisfied, if not, perform “CONTRAST Adjustment”.

Related adjustment items:
“CONTRAST Adjustment”

1-4-5. CONTRAST Adjustment (PD-97 Board)

Purpose: Adjust contrast of the LCD screen.

Adjustment error: The LCD picture becomes dull (white washing) or close to saturated image.

Mode	VTR stop
Signal	50% white signal
Measurement Point	CN3701 pin ㉒ (CL VG) on DD-103 board (Note)
Measuring Equipment	Oscilloscope
Adjustment Page	D
Adjustment Address	C4
Specification	A=2.20 ± 0.05Vp-p

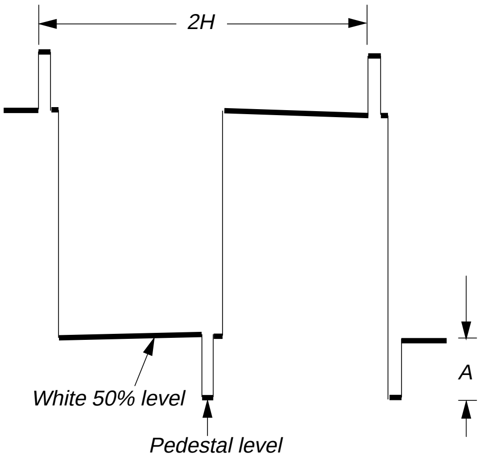


Fig. 5-1-22

Note 1: Pull-up CL-VG terminal +15V with 10kΩ resistor as shown in preparation Fig. 5-1-20 (See page 5-28).

Adjustment Procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	2	10	01	Set the data.
3	D	C4		Change the data until the voltage difference (A) between the 50% all white signal and the pedestal satisfies the specification.
4				Press the PAUSE button.
5	2	10	00	Set the data.
6	0	01	00	Set the data. (End)

Note 2: Check that the specified value of “BRIGHT Adjustment” is satisfied, if not, perform “BRIGHT Adjustment”.

Related adjustment items:
“BRIGHT Adjustment”

1-4-6. White Balance Adjustment

Purpose: Calibrate the white balance.
Adjustment error: The color reproduction of the LCD screen becomes poor.

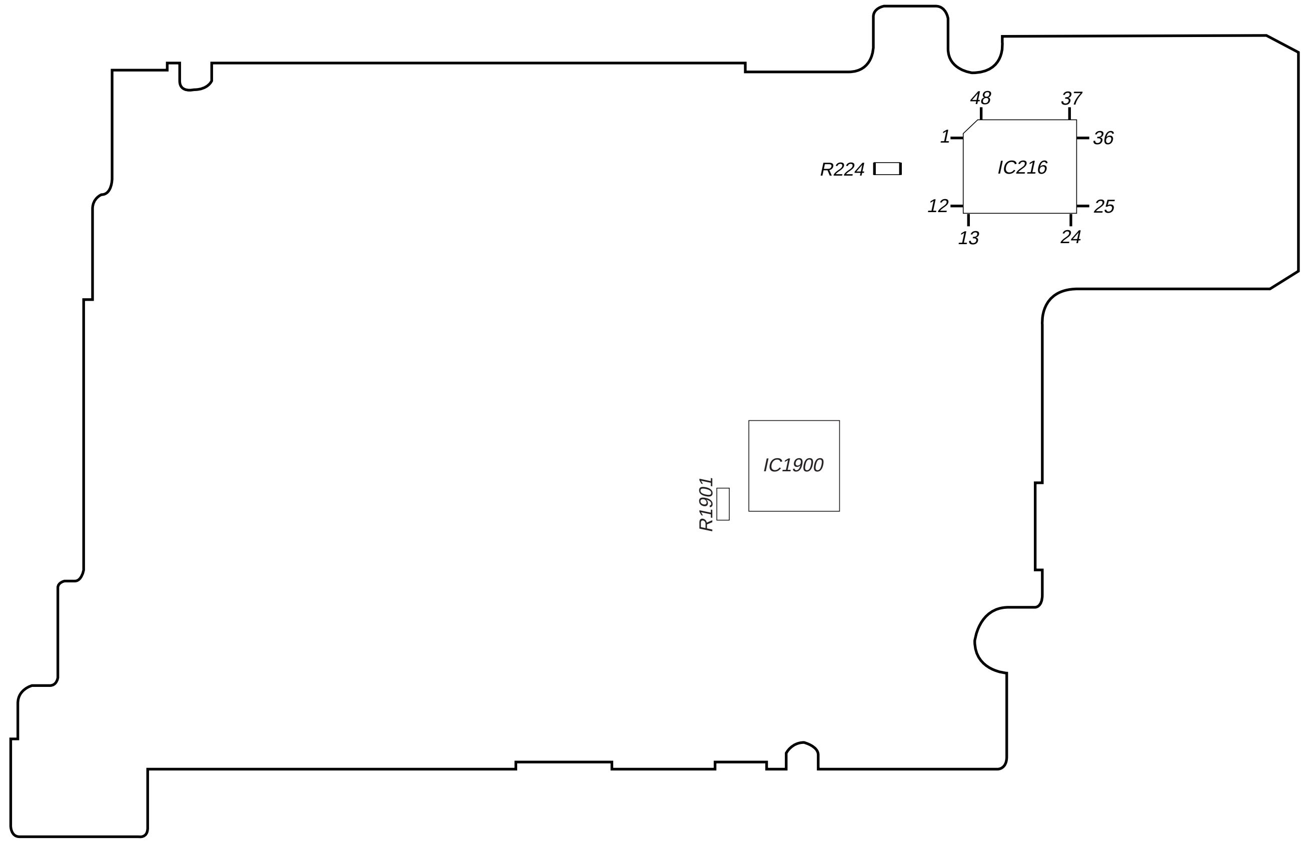
Mode	VTR stop
Signal	50% white signal
Measurement Point	Check white balance on the LCD screen.
Measuring Equipment	
Adjustment Page	D
Adjustment Address	C2, C3
Specification	The LCD screen must not have any colors.

Adjustment Procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	2	10	01	Set the data.
3	D	C2, C3		If the LCD screen has any colors, change the data until the LCD screen has any colors.
4				Press the PAUSE button.
5	2	10	00	Set the data.
6	0	01	00	Set the data. (End)

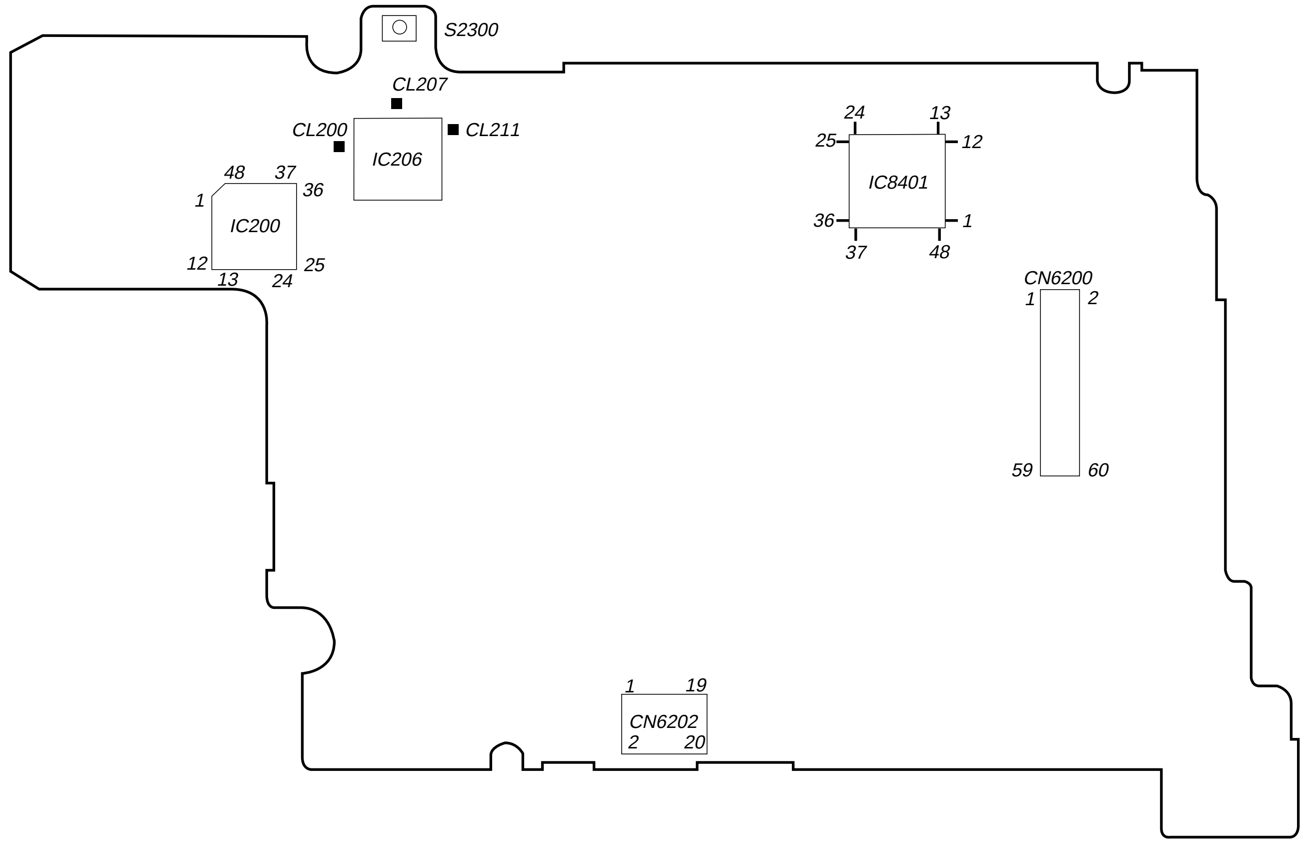
1-5. ARRANGEMENT DIAGRAM FOR ADJUSTMENT PARTS

VC-199 board (SIDE A)



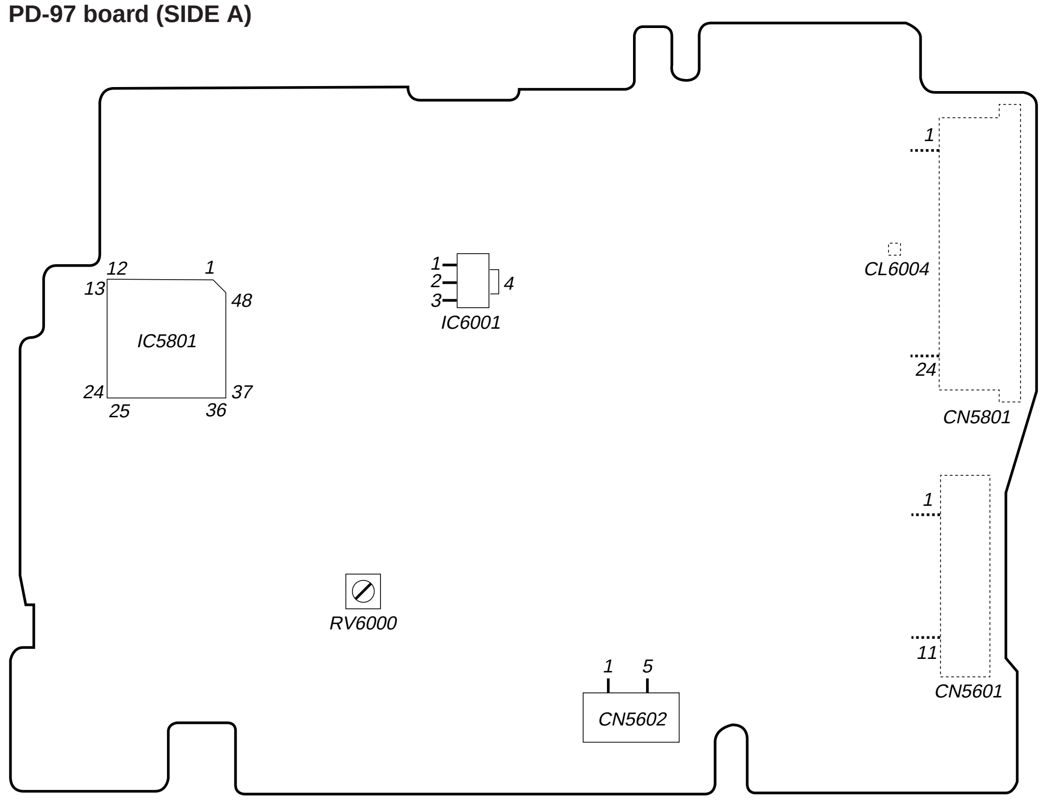
48
37
1
36
IC216
R224
12
25
13
24
IC1900
R1901

VC-199 board (SIDE B)



S2300
CL207
CL200
CL211
IC206
48
37
36
1
IC200
12
25
13
24
24
13
25
12
IC8401
36
1
37
48
CN6200
1
2
59
60
1
19
CN6202
2
20

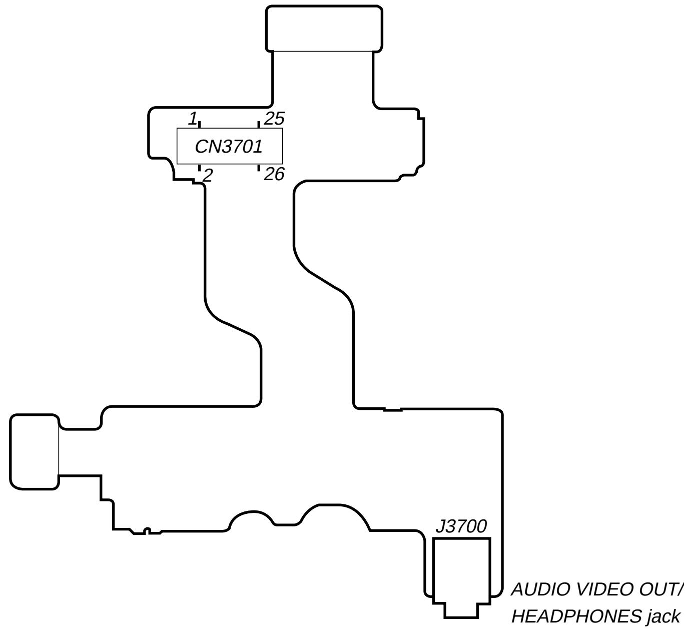
PD-97 board (SIDE A)



1
CL6004
24
CN5801
12
1
13
48
IC5801
24
37
25
36
1
2
3
4
IC6001
1
11
CN5601
RV6000
1
5
CN5602

Note: *CN5801, CN5601 and CL6004 are mounted to the SIDE B.*

DD-103 board (SIDE A)



1
25
CN3701
2
26
J3700
AUDIO VIDEO OUT/
HEADPHONES jack

5-2. MECHANISM SECTION ADJUSTMENTS

Mechanism Section Adjustments

For details of mechanism section adjustments, checks, and replacement of mechanism parts, refer to the separate volume “DV MECHANICAL ADJUSTMENT MANUAL Ⅲ D200 Mechanism ”.

2-1. OPERATING WITHOUT CASSETTE

1) Refer to “2. Removal” and supply the power with the cabinet (L) assembly removed.
2) Connect the adjustment remote commander to the 26-pin MULTI connector via the I/O board-1 jig (J-6082-372-C).
3) Turn on the HOLD switch of the adjustment remote commander.
4) Set page: 0, address: 01, data: 01.
5) Set page: C, address: 52, data: FD and press the PAUSE button of the adjustment remote commander.
6) Set page: D, address: 10, data: 08 and press the PAUSE button of the adjustment remote commander.

The above procedure enables the mechanism to operate without the cassette. After checking operations, be sure to perform “Procedure After Checking Operations”.
To use the “No-Cassette Operations Mode” and “Forced Power ON Mode” together, set the following data to page: D, address: 10.

Forced VTR Power ON Mode 0A

[Procedure after checking operations]

1) Set page: 0, address: 01, data: 01.
2) Set page: C, address: 52, data: FF and press the PAUSE button of the adjustment remote commander.
3) Set page: D, address: 10, data: 00 and press the PAUSE button of the adjustment remote commander.
4) Set page: 0, address: 01, data: 00.
5) Disconnect the power supply of the unit.

2-2. TAPE PATH ADJUSTMENT

1. Preparations for Adjustment

1) Clean the tape running side (tape guide, capstan shaft, pinch roller).
2) Connect the adjustment remote commander to the 26-pin MULTI connector via the I/O board-1 jig (J-6082-372-C).
3) Turn on the HOLD switch of the adjustment remote commander.
4) Select page: 3, address: 3C, and set data: 07.
5) Connect the oscilloscope.
   Channel 1: VC-199 board, CN6202 Pin ② (Note 1)
   External trigger: VC-199 board, CN6202 Pin ⑤
   (Connect the oscilloscope via the CPC-6 terminal board jig (J-6082-371-A) and CPC-6 jig (J-6082-370-A).)
6) Playback an alignment tape (XH2-1) for tracking.
7) Check that the oscilloscope RF waveform is flat at the entrance and exit.
   If not flat, adjust according to the separate volume “DV MECHANICAL ADJUSTMENT MANUAL Ⅲ D200 Mechanism ”.
8) After completing the adjustment, perform “Procedure After Checking Operations”.

Note: Connect Pins ② and ① (GND) of CN6202 with a 75Ω resistor.

CN6202 of VC-199 board

Pin No.	Signal Name	Pin No.	Signal Name
1	GND	2	RF MONITOR
3	ENV OUT	4	REF OUT
5	JSWP	6	LOCK
7	EQ IN	8	VCC1
9	AGC IN	10	VCC2
11	GND	12	C1ERP
13	TRACK ID	14	TDOB
15	FLTD	16	EVF CHECK1
17	TMS	18	TCK
19	EVF VG	20	TDI

2. Procedure after operation

1) Connect the adjustment remote commander, and turn on the HOLD switch.
2) Select page: 3, address: 3C, and set data: 00.
3) Disconnect the power of the unit.

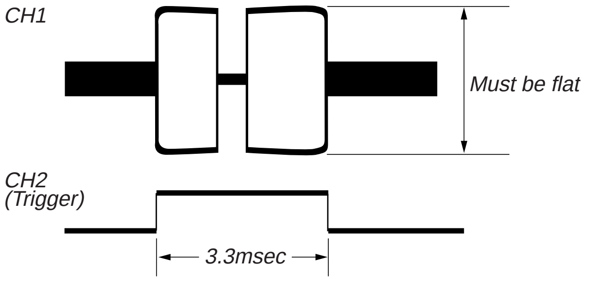


Fig. 5-2-1

5-3. VIDEO SECTION ADJUSTMENTS

When performing adjustments, refer to the layout diagrams for adjustment related parts beginning from page 5-65.

NTSC model : DCR-PC10
PAL model : DCR-PC10E

3-1. PREPARATIONS BEFORE ADJUSTMENT

The following adjustment instruments are used for adjusting the video section.

3-1-1. Equipments to be Used

1) TV monitor
2) Oscilloscope : dual trace, band 30MHz or wider, with delay mode. (Use a 10 : 1 probe unless otherwise specified.)
3) Frequency counter
4) Digital voltmeter
5) Audio generator
6) Audio level meter
7) Audio distortion meter
8) Audio attenuator
9) Regulated power supply
10) Alignment tape
    For NTSC model
    - Tracking standard (XH2-1)
      Part code : 8-967-997-01
    - SW/OL standard (XH2-3)
      Part code : 8-967-997-11
    - Audio operation check (XH5-3)
      Part code : 8-967-997-51
    - System operation check (XH5-5)
      Part code : 8-967-997-61
    - BIST check (XH5-6)
      Part Code : 8-967-997-71

    For PAL model
    - Tracking standard (XH2-1)
      Part code : 8-967-997-01
    - SW/OL standard (XH2-3)
      Part code : 8-967-997-11
    - Audio operation check (XH5-3P)
      Part code : 8-967-997-55
    - System operation check (XH5-5P)
      Part code : 8-967-997-66
    - BIST check (XH5-6P)
      Part Code : 8-967-997-76
12) Adjustment remote commander
    Parts code : J-6082-053-B
13) I/O board-1 jig
    Parts code : J-6082-372-C
14) CPC-6 jig
    Parts code : J-6082-370-A
15) CPC-6 terminal board jig
    Parts code : J-6082-371-A
16) Extension cable (18P, 0.5 mm)
    Parts code : J-6082-374-A

3-1-2. Power Supply Procedure

Apply power voltage via I/O board-1 jig (J-6082-372-C) to 26-pin MULTI connector on the set as shown in Fig. 5-3-1.
Short-circuit between pins ⑭ and ⑯.

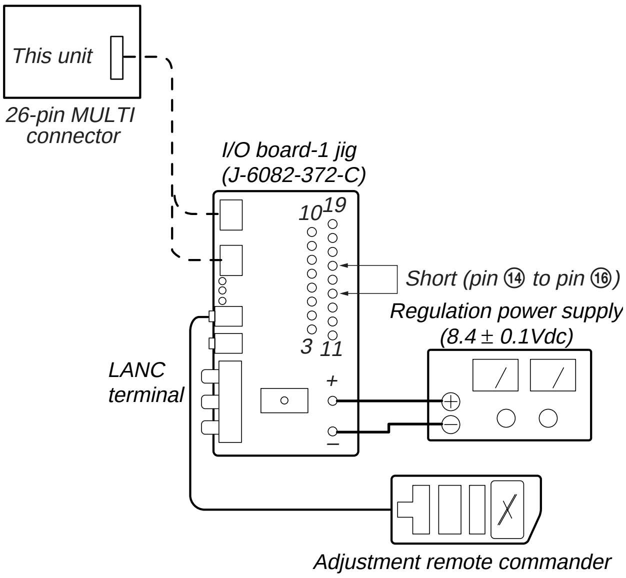

This unit
26-pin MULTI connector
I/O board-1 jig (J-6082-372-C)
10
19
3
11
Short (pin ⑭ to pin ⑯)
Regulation power supply (8.4 ± 0.1Vdc)
LANC terminal
+
−
Adjustment remote commander

Fig. 5-3-1

3-1-3. Precautions in Adjustment

1) The adjustments of this unit are performed in the VTR mode or camera mode.
   To set to the VTR mode, set the power switch to “VTR” (or PLAYER) or set the “Forced VTR Power ON Mode” using the adjustment remote commander (Note 1).
   To set to the camera mode, set the power switch to “CAMERA” or set the “Forced Camera Power ON Mode” using the adjustment remote commander (Note 2).
   After completing the adjustments, be sure to exit the “Forced VTR Power ON Mode” or “Forced Camera Power ON Mode”. (Note 3)
2) The viewfinder need not be connected (except during battery end adjustment). Disconnect the following connector when adjusting.
   1. CN1000 of VC-199 board (20P, 0.5mm, B-B)
3) The lens block need not be connected in adjustments other than the camera system adjustments (except during battery end adjustment). Disconnect the following connector when adjusting.
   1. CN200 of VC-199 board (50P, 0.5mm, B-B)
4) If ejection need not be performed, the FK-4850 control switch block (power switch, eject switch, start/stop switch, VTR function switch) need not be connected as long as the “Forced Power ON Mode” is set.
   Disconnect the following connector when removing it.
   1. CN2300 of VC-199 board (20P, 0.5mm)
   After completing adjustments, be sure to exit the “Forced Power ON Mode”.
5) When opening the MR-39 board, use the following extension cord.
   1. J-6082-374-A (18P, 0.5mm)
6) When removing the cabinet (R) (DD-103 board, LCD block, microphone, speaker, ME-4850 switch block), only the DD-103 board will need to be connected to operate the unit. Remove the DD-103 board from the cabinet (R), and connect it to CN6200 of the VC-199 board (60P, 0.5 mm, B-B) and CN6102 of the MR-39 board (30P, 0.5mm, B-B). When removing the LCD block, microphone, speaker, and ME-4850 switch block, disconnect the following connectors.
   1. CN2301 of VC-199 board (5P, 0.5 mm)
      (ME-4850 switch block)
   2. CN4700 of VC-199 board (4P, 1.0 mm) (microphone)
   3. CN4701 of VC-199 board (2P, 1.0 mm) (speaker)
   4. CN1001 of VC-199 board (6P, 1.0 mm) (LCD block)
   5. CN1002 of VC-199 board (11P, 1.0 mm) (LCD block)
7) If the DD-103 board is disconnected from the VC-199 board, the lithium 3V power supply will also be disconnected and all data set by the user such as date, time, menu, etc. will be erased. Set these data again after completing the adjustments.

Note 1 : How to enter the “forced VTR power ON” mode:
   1) Set page : 0, address : 01, data : 01.
   2) Set page : D, address : 10, data : 02, and press the PAUSE button of the adjustment remote commander.
      If the “forced VTR power ON mode” is established, the VTR power can be turned ON, even though the CABINET (R) ASSY is removed. After completing adjustments, be sure to exit the “forced power ON mode”.

Note 2 : How to enter the “forced camera + VTR power ON” mode (camera mode) :
   1) Set page : 0, address : 01, data : 01.
   2) Set page : D, address : 10, data : 03, and press the PAUSE button of the adjustment remote commander.
      If the “forced VTR power ON mode” is established, the camera power can be turned ON, even though the CABINET (R) ASSY is removed. After completing adjustments, be sure to exit the “forced power ON mode”.

Note 3 : How to exit the “forced power ON mode”:
   1) Set page : 0, address : 01, data : 01.
   2) Set page : D, address : 10, data : 00, and press the PAUSE button of the adjustment remote commander.
   3) Set page : 0, address : 01, data : 00.

3-1-4. Adjusting Connectors

Some of the adjusting pints of the video section are concentrated at CN6202 of the VC-199 board. Remove the battery plate and connect the measuring instruments via the CPC-6 jig (J-6082-370-A) and the CPC-6 terminal board jig (J-6082-371-A). The following table lists the pin numbers and signal names of CN6202.

CN6202 of VC-199 board

Pin No.	Signal Name	Pin No.	Signal Name
1	GND	2	RF MONITOR
3	ENV OUT	4	REF OUT
5	JSWP	6	LOCK
7	EQ IN	8	VCC1
9	AGC IN	10	VCC2
11	GND	12	C1ERP
13	TRACK ID	14	TDOB
15	FLTD	16	EVF CHECK1
17	TMS	18	TCK
19	EVF VG	20	TDI

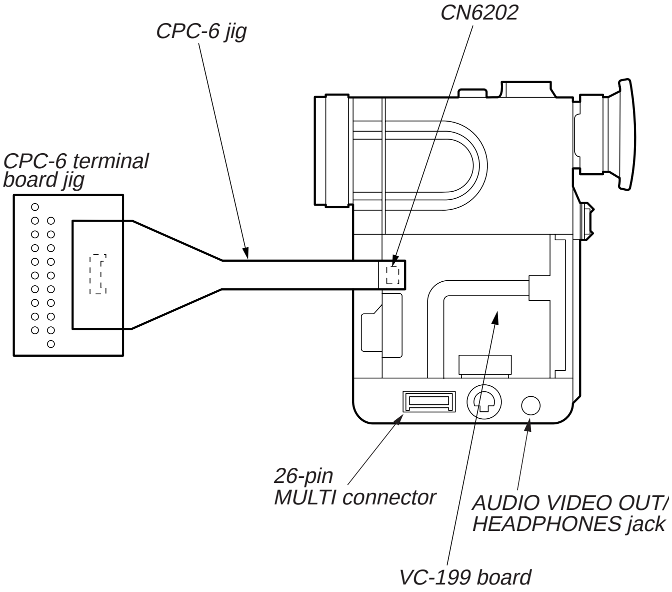


Fig. 5-3-2

3-1-5. Connection of Equipment

Connect the measuring instruments as shown in Fig. 5-3-3.

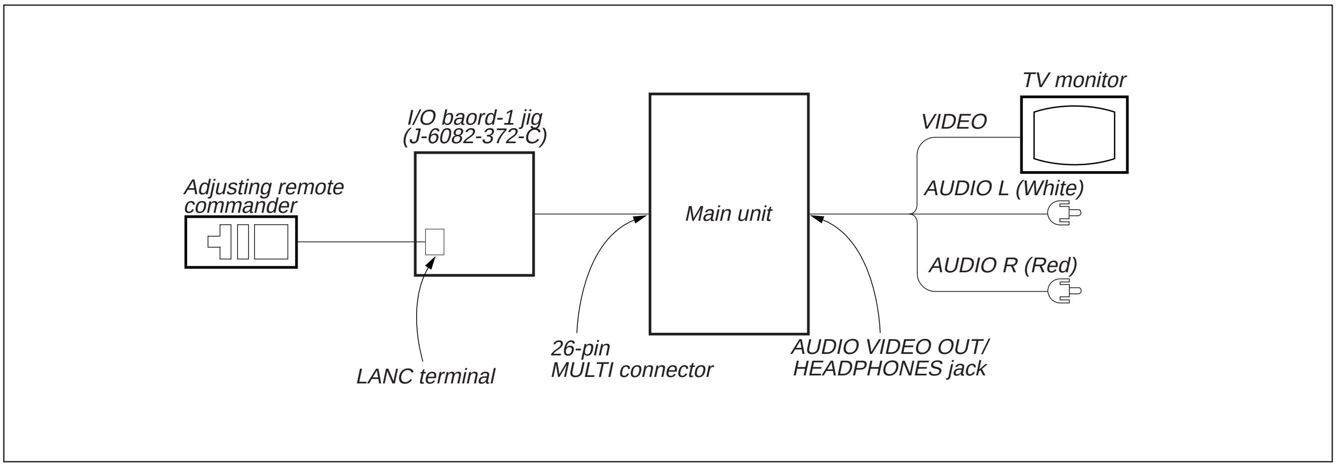

TV monitor
VIDEO
I/O baord-1 jig
(J-6082-372-C)
Adjusting remote commander
Main unit
AUDIO L (White)
AUDIO R (Red)
26-pin
MULTI connector
AUDIO VIDEO OUT/
HEADPHONES jack
LANC terminal

Fig. 5-3-3.

The color bar signal which is recorded in the alignment tape.

Note: Measured at video input/output connector (across 75Ω termination).

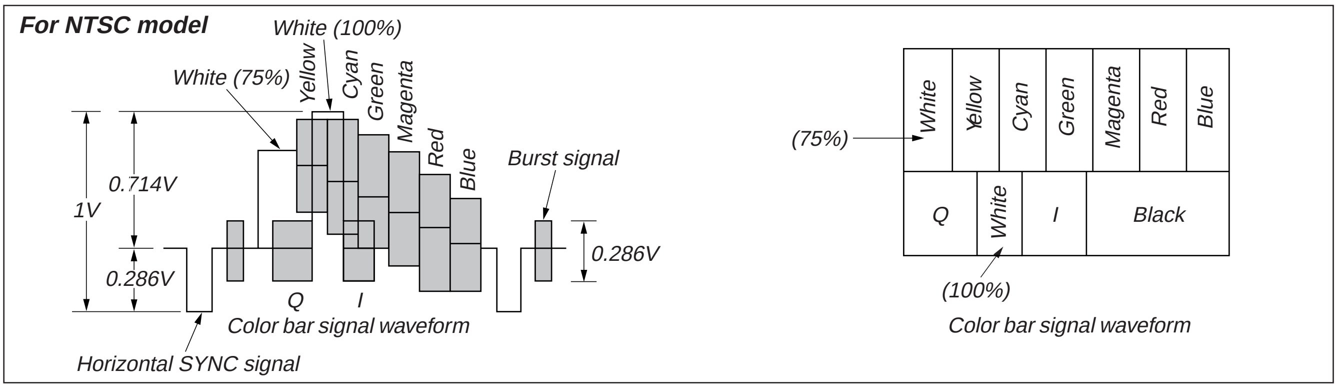

For NTSC model
White (100%)
White (75%)
Yellow
Cyan
Green
Magenta
Red
Blue
Burst signal
0.714V
1V
0.286V
0.286V
Q
I
Color bar signal waveform
Horizontal SYNC signal
(75%)
White
Yellow
Cyan
Green
Magenta
Red
Blue
Q
White
I
Black
(100%)
Color bar signal waveform

Fig. 5-3-4 Color bar signal of NTSC alignment tape

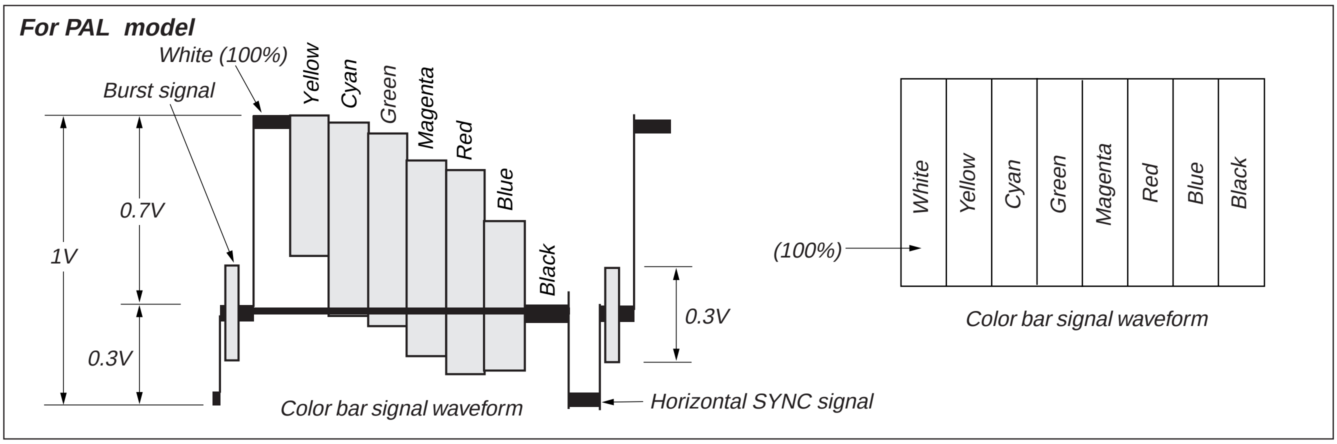

For PAL model
White (100%)
Burst signal
Yellow
Cyan
Green
Magenta
Red
Blue
Black
0.7V
1V
0.3V
0.3V
Color bar signal waveform
Horizontal SYNC signal
White
Yellow
Cyan
Green
Magenta
Red
Blue
Black
(100%)
Color bar signal waveform

Fig. 5-3-5 Color bar signal of PAL alignment tape

3-1-6. Output Level and Impedance

Video output	Pin jack Output signal : 1Vp-p, 75Ω unbalanced, sync negative
S video output	4-pin mini DIN Luminance signal : 1Vp-p, 75Ω, unbalanced, sync negative Chrominance signal : 0.286Vp-p (NTSC) 75Ω, unbalanced 0.3Vp-p (PAL) 75Ω, unbalanced
Audio output	Special stereo mini jack Output level : 327mV (at load impedance 47kΩ) Output impedance : 2.2kΩ or less

3-2. POWER SUPPLY SYSTEM ADJUSTMENTS

1. Power Supply Voltage Check (DD-103 Board)

Mode	Camera recording
Subject	Arbitrary
Measuring Instrument	Digital voltmeter
3.1V check	
Measurement Point	Pins ㉗, ㉘ of CN3700
Specified Value	3.18 ± 0.05 Vdc
2.8V check	
Measurement Point	Pins ㊱, ㊲ of CN3700
Specified Value	2.86 ± 0.05 Vdc
2.1V check	
Measurement Point	Pins ㊸, ㊹ of CN3700
Specified Value	2.17 ± 0.05 Vdc
13.5V check	
Measurement Point	Pin ㊽ of CN3700
Specified Value	13.5 ± 0.3 Vdc
4.9V check	
Measurement Point	Pins ㊾, ㊿ of CN3700
Specified Value	4.86 ± 0.08 Vdc
4.8V check	
Measurement Point	Pins (51), (52) of CN3700
Specified Value	4.86 ± 0.1 Vdc
4.9V check	
Measurement Point	Pins (53), (54) of CN3700
Specified Value	4.86 ± 0.08 Vdc
–6.5V check	
Measurement Point	Pin (58) of CN3700
Specified Value	–6.2 ± 0.2 Vdc
12V check	
Measurement Point	Pin (60) of CN3700
Specified Value	11.9 ± 0.25 Vdc
3.1V check	
Measurement Point	Pins ⑮, ⑯ of CN3900
Specified Value	3.18 ± 0.05 Vdc
4.9V check	
Measurement Point	Pins ⑲, ⑳ of CN3900
Specified Value	4.86 ± 0.08 Vdc
4.8V check	
Measurement Point	Pins ㉓, ㉔ of CN3900
Specified Value	4.86 ± 0.1 Vdc
2.8V check	
Measurement Point	Pins ㉙, ㉚ of CN3900
Specified Value	2.86 ± 0.05 Vdc

3-3. SYSTEM CONTROLLER SYSTEM ADJUSTMENTS

3-3-1. Initializing the Page D Data

Note: If the page D data is initialized, the following adjustments must be performed again.
"LCD System Adjustments", "Color Electronic Viewfinder System Adjustments", "Battery Down Adjustment", and "Base Band Block Adjustment" and "Clock Adjustment" of the "Video System Adjustment".

Mode	VTR stop
Signal	Any signal
Adjustment Page	D
Adjustment Address	10 to DF

Initializing Procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	2	00	2D	After setting the data, press the PAUSE button.
3	2	01	2D	After setting the data, press the PAUSE button.
4	2	02		Confirm that the data is 01.
5	0	01	00	Set the data. (End)
6				After Modification of Page D is performed.

3-3-2. Modification of Page D Data

If the page D data has been initialized, change the data as shown in the following table by manual input.

Note 1: The fixed values in the table are not shown because they are different in destination. When changing the data of page D, copy the data built in the same model.

Note 2: Before changing the data, set page : 0, address: 01, data : 01.

Note 3: To write in the non-volatile memory (EEPROM) after changing the data, press the PAUSE button of the adjustment remote commander each time to set the data.

Note 4: After changing the data, set page : 0, address: 01, data : 00 and perform "LCD Adjustment", "Color EVF Adjustment" and "Battery Down Adjustment".

Address	Data
13	Fixed
14	Fixed
15	Fixed
16	E5
18	03
19	2B
1A	Fixed
1B	C2
1C	2F
1E	3F
1F	1D
20	07
21	Fixed
23	10
24	Fixed
26	Fixed
27	Fixed
49	2A
4A	83
4B	D6
5B	77
5D	89
70	A8
71	BD
72	61
73	93
74	93
75	BB
76	6F
77	70
7A	8A
82	Fixed
83	Fixed
86	Fixed
87	Fixed
8A	25
8B	1A
8F	00
99	3A
A5	Fixed
A6	Fixed
A7	Fixed
A8	Fixed
AC	Fixed
AF	Fixed
C0	B6
C1	C5
C2	AE
C3	BB
C4	71
C5	91
C7	D1
C8	C0
C9	B0
CA	B0
CB	B0
CD	55

3-3-3. Initializing the Page C Data

Note 1: If the page C data is initialized, the following adjustments must be performed again.
All RF block adjustments of “Video System Adjustments” and “Servo System Adjustments”.

Note 2: Recording the data of page: C by taking note, recommended before initializing the page: C.

Mode	VTR stop
Adjustment Page	C
Adjustment Address	00 to 6F

Initializing Procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	4	02	01	After setting the data, press the PAUSE button.
3	4	02		Check that the data of page: 4, address: 02 changes in the order of 01, 03, 05, 00.
4	0	01	00	Set the data. (End)
6				After Modification of Page C is performed.

3-3-4. Modification of Page C Data

If the page C data has been initialized, change the data as shown in the following table by manual input.

Note 1: The fixed values in the table are not shown because they are different in destination. When changing the data of page C, copy the data built in the same model.

Note 2: Before changing the data, set page : 0, address: 01, data : 01.

Note 3: To write in the non-volatile memory (EEPROM) after changing the data, press the PAUSE button of the adjustment remote commander each time to set the data.

Note 4: After changing the data, set page : 0, address: 01, data : 00 and perform all RF block adjustments of “Video System Adjustments” and “Servo System Adjustments”.

Address	Data
08	Fixed
13	Fixed
19	Fixed
2A	26

3-3-5. Battery Down Adjustment

Purpose:	Set the battery end voltage.
Adjustment Error:	If the voltage is incorrect, the remainder of the battery will be shorter. The image at the battery end will also lose sync.

Mode	Camera record
Signal	any
Measurement Point	LCD display of the adjustment remote commander
Measuring Instrument	
Adjustment Page	D
Specified Value	28 to 2C, 37

Switch setting:

1) FOCUS switch (FK-4850 flexible, S13) .... MANUAL

Connection:

1) Connect the regulated power supply and the digital voltmeter to the battery terminal as shown in Fig. 5-3-6.

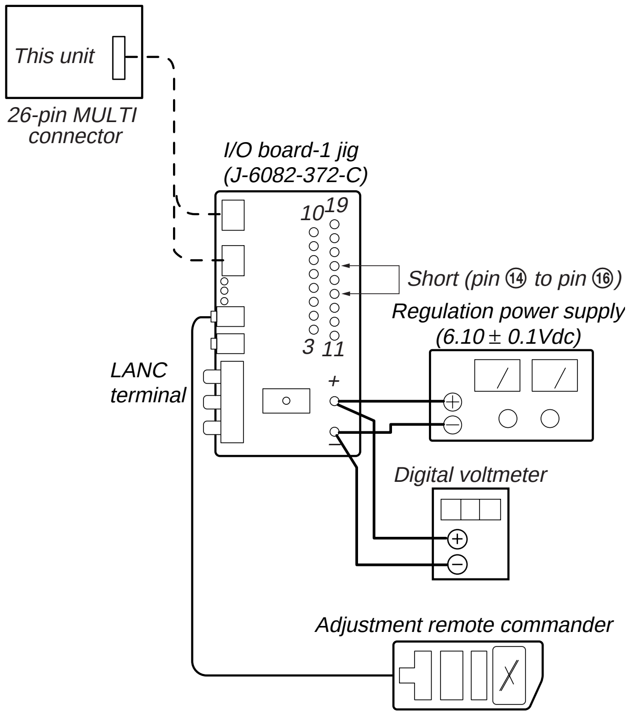

This unit
26-pin MULTI connector
I/O board-1 jig (J-6082-372-C)
10
19
3
11
+
−
Short (pin ⑭ to pin ⑯)
Regulation power supply (6.10 ± 0.1Vdc)
LANC terminal
Digital voltmeter
Adjustment remote commander

Fig. 5-3-6

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Adjustment the output voltage of the regulated power supply so that the display is 6.10 ± 0.1 Vdc.
2				Load a cassette, and set the unit to the camera recording mode.
3	0	01	01	Set the data. (Preparation)
4				Decrease the output voltage of the regulated power supply so that the digital voltmeter display is 5.30 ± 0.01 Vdc.
5	2	51		Read the adjustment remote commander display data, and this data is named Dref.
6				Convert the data Dref into the decimal numbers. The result decimal number is Dref '. (Use page 5-73 “Hexadecimal-Decimal Conversion Table”.)
7	D	28 29 2A 2B 2C 37		Calculate the following equations (decimal number calculation) using Dref ' for each address. Convert the above eleven decimal numbers to the eleven hexadecimal numbers. Set the hexadecimal data to each address. Address 28 D_{28}' = Dref ' 29 D_{29}' = Dref ' + 11 2A D_{2A}' = Dref ' + 36 2B D_{2B}' = Dref ' + 58 2C D_{2C}' = Dref ' + 66 37 D_{37}' = Dref ' After setting the data, be sure to press the PAUSE button of the adjustment remote commander.
8	0	01	00	Set the data. (End)
9				Turn OFF the power switch.

3-4. SERVO SYSTEM ADJUSTMENTS

1. T Reel FG Duty Adjustment and CSerr Adjustment (MR-39 Board)

Measurement Point	Adjustment remote commander display data
Measuring Instrument	
Adjustment Page	C
Adjustment Address	59, 6F
Specified Value	CSerr Adjustment: The data of page: 3, address: 03 is "00". T reel FG Duty Adjustment: The data of page: C, address: 6F is "01," or "02", "03".

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Set the power switch to "VTR" or (PLAYER).
2				Set the loading completed state without inserting the cassette. Connect the adjusting remote commander, and set the HOLD switch to ON.
3	0	01	01	Set the data. (Preparation)
4	3	09	00	After setting the data, press the PAUSE button.
5	3	01	1A	After setting the data, press the PAUSE button. (To start up automatic "T reel FG Duty and CSerr Adjustment".)
6	3	02		Check that the data is changed from 17 to 00.
7				Set the HOLD switch of the adjustment remote commander to OFF, and wait more than 2 seconds.
8				Set the HOLD switch of the adjustment remote commander to ON.
9	3 C	08 59		Check that the data of page: 3, address: 08 and that of page: C, address: 59 are the same.
10	3	03		If the data of page: 3, address: 03 is 00, it means that the automatic CSerr adjustment has ended normally.
11	3 C	04 6F		Check that the data of page: 3, address: 04 and that of page: C, address: 6F are the same.
12	C	6F		If the data of page: C, address: 6F is 01, or 02, 03, it means that the automatic T reel FG adjustment has ended normally.
13	0	01	00	Set the data.
14				Turn OFF the power switch.

2. Switching Position Adjustment (MR-39 Board)

Mode	Playback
Signal	SW/OL reference tape
Measurement Point	Display data of page: 3, address: 03 of the adjustment remote commander.
Measuring Instrument	
Adjustment Page	C
Adjustment Address	4C, 4D, 4E, 4F
Specified Value	00

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2				Playback the SW/OL reference tape in VTR mode.
3	3	01	0E	After setting the data, press the PAUSE button.
4	3	02		Check that the data of page: 3, address: 02 has changed from 0E to 00.
5	3	03		Check that the data pf page: 3, address: 03 is 00.
6				Set the HOLD switch of the adjustment remote commander to OFF, and wait more than 2 seconds (so that the adjustment data is automatically written is page: C, addresses: 4C to 4F.)
7	0	01	00	Set the data.
8				Push EJECT button to take the SW/OL reference tape out.
9				Turn OFF the power switch.

3-5. VIDEO SYSTEM ADJUSTMENTS

3-5-1. RF Block Adjustment (MR-39 Board)

1. Record Current Adjustment/ Frequency Response Check

Mode	VTR stop
Measurement Point	For ODD channel adjustment : CH-1 : CN2708 pin ⑤ (CL2719) CH-2 : CN2708 pin ⑥ (CL2718) For EVEN channel adjustment : CH-1 : CN2708 pin ③ (CL2721) CH-2 : CN2708 pin ② (CL2722)
Measuring Instrument	Oscilloscope ADD mode CH-2 INV mode
Adjustment Page	C
Adjustment Address	3E, 3F
Specification Value	A = 3.1 ± 0.1Vp-p

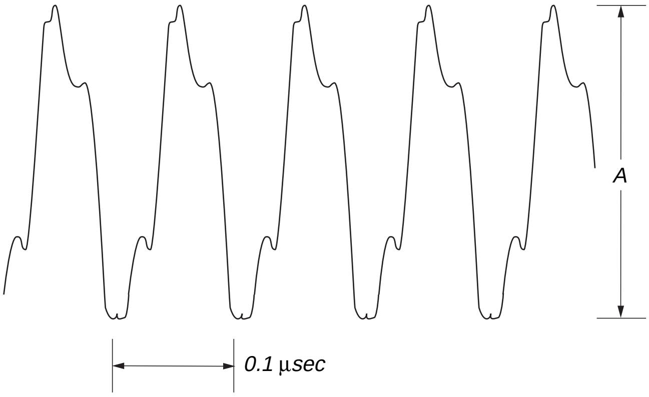


Fig. 5-3-7

Connection :

Remove CN2708 and perform the following connection.

1) For ODD channel adjustment, connect a resistor of 180Ω between CN2708 pin ⑤ (CL2719) and CN2708 pin ⑥ (CL2718).
2) For EVEN channel adjustment, connect a resistor of 180Ω between CN2708 pin ③ (CL2721) and CN2708 pin ② (CL2722).

180Ω resistor (1-249-408-11)

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Calibrate the VERT gain of CH-1 and CH-2 of an oscilloscope for unity gain. Set the scope to ADD mode. Set CH-2 to INV mode.
2	0	01	01	Set the data. (Preparation)
3	3	01	0C	After setting the data, press the PAUSE button.
4	3	34	01	After setting the data, press the PAUSE button.
5	C	3F 3E		Change the following data until the signal voltage (A) satisfies the specification value and press the PAUSE button. For ODD channel : Page C, Address : 3F For EVEN channel : Page C, Address : 3E .

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	3	34	04	After setting the data, press the PAUSE button.
2	3	01	00	After setting the data, press the PAUSE button.
3	0	01	00	Set the data. (End)

2. PLL fo Adjustment (MR-39 Board)

Mode	VTR stop
Measurement Point	The displayed data of address : 04 on page : 3
Measuring Instrument	
Adjustment Page	C
Adjustment Address	3D, 3C
Specification Value	The displayed data is in the range from FD to FF, or in the range from 00 to 03. (FF and 00 are the center values.)

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	3	01	05	After setting the data, press the PAUSE button.
3	3	36	04	After setting the data, press the PAUSE button.
4	3	04		Take reading of the displayed data of address : 04 on page : 3 several times and take the average value which is taken as D_{04}. Confirm that D_{04} is in the range from “FD” to “FF” or from “00” to “03”.
5	C	3C		If D_{04} is not in the specified range in step 4, adjust the data of address : 3C on page : C as follows and check the result again. [When D_{04} is in the range from 80 to FC] Decrease the data of address : 3C on page : C. (To write the data, press the PAUSE button of the adjustment remote commander after data is changed.) [When D_{04} is in the range from 04 to 7F] Increase the data of address : 3C on page : C. (To write the data, press the PAUSE button of the adjustment remote commander after data is changed.)
6	3	36	05	After setting the data, press the PAUSE button.
7	3	04		Confirm that the average data D_{04} of address : 04 on page : 3 is in the range from “FD” to “FF” or from “00” to “03”.
8	C	3D		If D_{04} is not in the specified range in step 7, adjust the data of address : 3D on page : C as follows and check the result again. [When D_{04} is in the range from 80 to FC] Decrease the data of address : 3D on page : C. (To write the data, press the PAUSE button of the adjustment remote commander after data is changed.) [When D_{04} is in the range from 04 to 7F] Increase the data of address : 3D on page : C. (To write the data, press the PAUSE button of the adjustment remote commander after data is changed.)

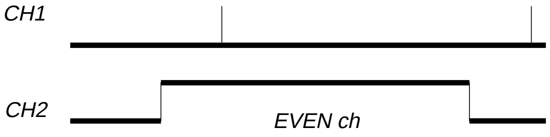
Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	3	36	02	After setting the data, press the PAUSE button.
2	3	01	00	After setting the data, press the PAUSE button.
3	0	01	00	Set the data. (End)

3. CLK DELAY Adjustment (MR-39 Board)

Mode	Camera record/playback (LP mode)
Subject	Any Subject
Signal	Playback signal of a pre-recorded tape
Measurement Point	CH-1 : CN6202 pin ⑫ (C1ERP) CH-2 : CN6202 pin ⑤ (JSWP J)
Measuring Instrument	Oscilloscope Triggered from : CH-2
Adjustment Page	C
Adjustment Address	47

When the CH1 pulse is not set.



When the CH1 pulse is set.

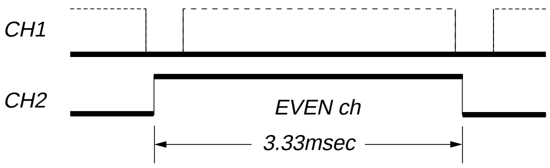


Fig. 5-3-8

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Record any camera picture for about two minutes on any tape.
2	0	01	01	Set the data. (Preparation)
3	C	40	C0	After setting the data, press the PAUSE button.
4	C	41	C0	After setting the data, press the PAUSE button.
5	C	42	90	After setting the data, press the PAUSE button.
6	C	43	90	After setting the data, press the PAUSE button.
7	C	47	F0	After setting the data, press the PAUSE button.
8	C	4B	80	After setting the data, press the PAUSE button.
9	C	5A	00	After setting the data, press the PAUSE button.
10				Playback the segment of a tape which is recorded in step 1.
11	C	47		Increase the data and read the data D_1 when the CH-1 data appears over the entire areas of audio and video.
12	C	47		Decrease the data and read the data D_2 when the CH-1 data appears over the entire areas of audio and video.
13				Obtain the average value between D_1 and D_2, and take it as D_3.
14	C	47		Set D_3 to this address and press the PAUSE button.
15	C	4B	00	After setting the data, press the PAUSE button.
16	C	5A	8C	After setting the data, press the PAUSE button.
17	0	01	00	Set the data. (End)

Processing after Adjustments:
Perform “AEQ Adjustment” after this adjustment is completed.

4. AGC Center Level Adjustment (VC-199 Board)

Mode	Camera record/playback (LP mode)
Subject	Any Subject
Signal	Playback signal of a pre-recorded tape
Measurement Point	CH-1 : CN6202 pin ⑫ (C1ERP) CH-2 : CN6202 pin ⑤ (JSWP J)
Measuring Instrument	Oscilloscope Triggered from : CH-2
Adjustment Page	C
Adjustment Address	44

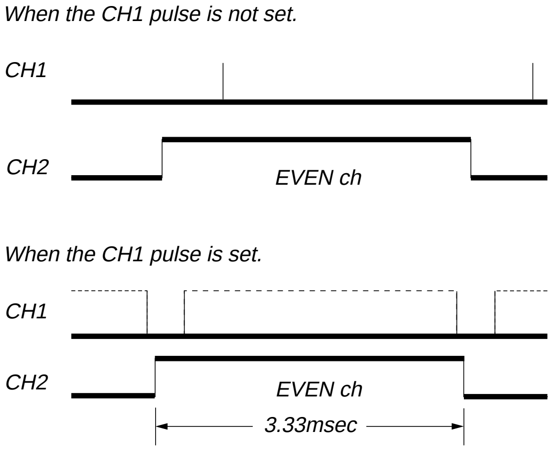


Fig. 5-3-9

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Record any camera picture for about two minutes on any tape.
2	0	01	01	Set the data. (Preparation)
3	C	40	C0	After setting the data, press the PAUSE button.
4	C	41	C0	After setting the data, press the PAUSE button.
5	C	42	90	After setting the data, press the PAUSE button.
6	C	43	90	After setting the data, press the PAUSE button.
7	C	44	60	After setting the data, press the PAUSE button.
8	C	4B	80	After setting the data, press the PAUSE button.
9	C	5A	00	After setting the data, press the PAUSE button.
10				Playback the segment of a tape which is recorded in step 1.
11	C	44		Increase the data and read the data D_1 when the CH-1 data appears over the entire areas of audio and video.
12	C	44		Decrease the data and read the data D_2 when the CH-1 data appears over the entire areas of audio and video.
13				Obtain the average value between D_1 and D_2, and take it as D_3.
14	C	44		Set D_3 to this address and press the PAUSE button.
15	C	4B	00	After setting the data, press the PAUSE button.
16	C	5A	8C	After setting the data, press the PAUSE button.
17	0	01	00	Set the data. (End)

Processing after Adjustments:
Perform “AEQ Adjustment” after this adjustment is completed.

5. PLL Capture Range Adjustment (VC-199 Board)

Mode	Camera record/playback (LP mode)
Subject	Any Subject
Signal	Playback signal of a pre-recorded tape
Measurement Point	CH-1 : CN6202 pin ⑫ (C1ERP) CH-2 : CN6202 pin ⑤ (JSWP J)
Measuring Instrument	Oscilloscope Triggered from : CH-2
Adjustment Page	C
Adjustment Address	46

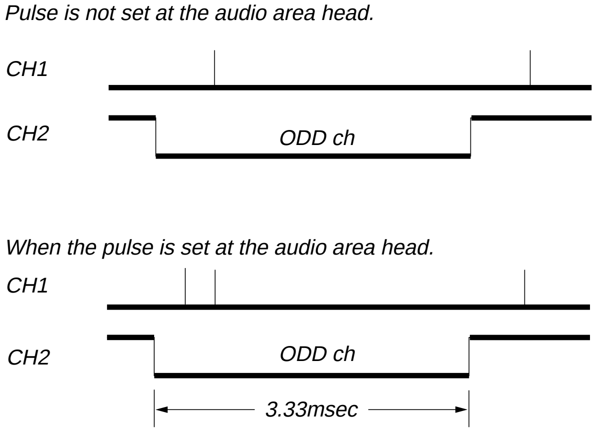

Pulse is not set at the audio area head.
CH1
CH2
ODD ch
When the pulse is set at the audio area head.
CH1
CH2
ODD ch
3.33msec

Fig. 5-3-10

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Record any camera picture for about two minutes on any tape.
2	0	01	01	Set the data. (Preparation)
3	C	4B	80	After setting the data, press the PAUSE button.
4	C	5A	00	After setting the data, press the PAUSE button.
5				Playback the segment of a tape which is recorded in step 1.
6	C	46	80	After setting the data, press the PAUSE button.
7	C	46	60	Set the data.
8				Confirm that the pulse is not present at the top of audio area of ODD channel of the CH-1 C1ERP waveform on an oscilloscope.
9	C	46	A0	Set the data.
10				Confirm that the pulse is not present at the top of audio area of ODD channel of the CH-1 C1ERP waveform on an oscilloscope. When the steps 8 and 10 are confirmed, return the data at address 46 to data 80 and proceed to step 15.
11	C	46		If pulse is present in steps 8 and 10, increase the data from 80 and read the data D_1 when pulse starts to appear at the top of the audio area of the CH-1 data.
12	C	46		Decrease the data from 80 and read the data D_2 when pulse starts to appear at the top of the audio area of the CH-1 data.
13				Obtain the average value between D_1 and D_2, and take it as D_3.
14	C	46		Set D_3 to this address and press the PAUSE button.
15	C	4B	00	After setting the data, press the PAUSE button.
16	C	5A	8C	After setting the data, press the PAUSE button.
17	0	01	00	Set the data. (End)

6. AEQ Adjustment (VC-199 Board)

Mode	Camera record/playback (LP mode)
Subject	Any Subject
Measurement Point	CN6202 pin ② (RF MONITOR)
Measuring Instrument	Oscilloscope
Adjustment Page	C
Adjustment Address	40, 41, 42, 43, 5A

Note: Connect the 75Ω resistor (1-247-804-11) between pins ① and ② of CN6202.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1				Record any Subject for about one minute from the tape top.
2	0	01	01	Set the data. (Preparation)
3	C	4B	80	After setting the data, press the PAUSE button.
4	C	40	C0	After setting the data, press the PAUSE button.
5	C	41	C0	After setting the data, press the PAUSE button.
6	C	42	90	After setting the data, press the PAUSE button.
7	C	43	90	After setting the data, press the PAUSE button.
8	C	5A	00	After setting the data, press the PAUSE button.
9				Rewind the tape and play it back from the tape top.
10	3	01	07	After RF envelope waveform is stabilized, set the data: 07 to this address and press the PAUSE button.
11	3	02		When about 20 to 30 seconds have elapsed after the PAUSE button is pressed, confirm that the data of address : 02 on page : 3 changes from “07” to “00”.
12	3	03		Confirm that the address : 03 on page : 3 shows the following data. When “00” : Normal When “01” : Even channel is defective. When “02” : ODD channel is defective. When “03” : Even and ODD channels are defective. Only when “00” appears, proceed to the next step.
13	3	04 05 06 07		Read the data of the addresses : from 04 to 07 on page : 3. Take them as D_{04}, D_{05}, D_{06} and D_{07}.
14	C	40		Set D_{04} to this address and press the PAUSE button.
15	C	42		Set D_{05} to this address and press the PAUSE button.
16	C	41		Set D_{06} to this address and press the PAUSE button.
17	C	43		Set D_{07} to this address and press the PAUSE button.
18	C	5A	8C	After setting the data, press the PAUSE button.
19	C	4B	00	After setting the data, press the PAUSE button.

Processing after Adjustments:

Order	Page	Address	Data	Procedure
1	3	01	00	After setting the data, press the PAUSE button.
2	0	01	00	Set the data. (End)

3-5-2. Base Band Block Adjustment

1. Composite Output Y Level Adjustment (VC-199 Board)

Purpose: Set the composite signal output level.
Adjustment Error: The picture will be brighter or darker on monitor.

Mode	CAMERA standby
Subject	Internal test pattern (White 70%)
Measurement Point	VIDEO terminal (75Ω terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	96
Specification Value	A = 500 ± 10 mVp-p (NTSC model) A = 490 ± 10 mVp-p (PAL model)

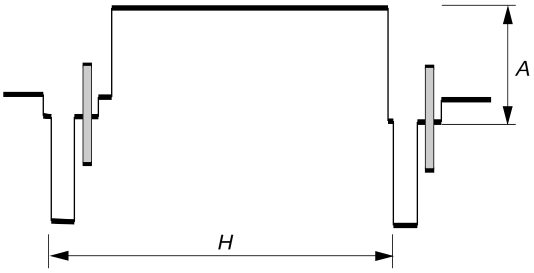


Fig. 5-3-11

Note: Insert the plug into the AUDIO VIDEO OUT/ HEADPHONES jack.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	2	12	20	After setting the data, press the PAUSE button.
3	D	96		Change the data until the white (70%) signal level (A) satisfies the specification.
4				Press the PAUSE button.
5	2	12	00	After setting the data, press the PAUSE button.
6	0	01	00	Set the data. (End)

2. Composite Output Chroma Level Adjustment (VC-199 Board)

Purpose: Set the burst signal output level.
Adjustment Error: Color of the picture will be thicker or thinner on monitor.

Mode	CAMERA standby
Subject	Internal test pattern (White 70%)
Measurement Point	VIDEO terminal (75Ω terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	97
Specification Value	A = 286 ± 6 mVp-p (NTSC model) A = 300 ± 6 mVp-p (PAL model)

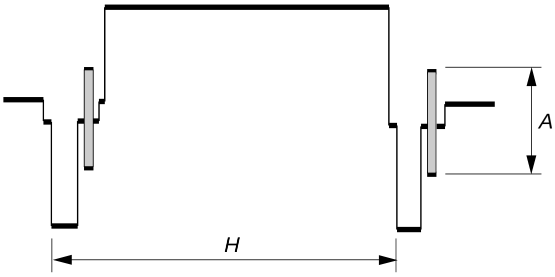


Fig. 5-3-12

Note: Insert the plug into the AUDIO VIDEO OUT/ HEADPHONES jack.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	2	12	20	After setting the data, press the PAUSE button.
3	D	97		Change the data until the burst signal level (A) satisfies the specification.
4				Press the PAUSE button.
5	2	12	00	After setting the data, press the PAUSE button.
6	0	01	00	Set the data. (End)

3. S-Y Output Level Adjustment (VC-199 Board)

Purpose: Set the Y signal output level.
Adjustment Error: The picture will be brighter or darker on monitor.

Mode	CAMERA standby
Signal	Internal test pattern (White 70%)
Measurement Point	Y signal terminal of S VIDEO terminal (75 terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	95
Specification Value	A = 500 ± 10 mVp-p (NTSC model) A = 490 ± 10 mVp-p (PAL model)

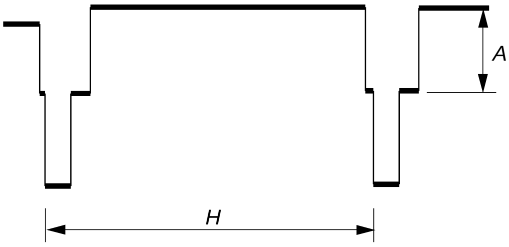


Fig. 5-3-13

Note: Insert the plug into the S video terminal.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	2	12	20	After setting the data, press the PAUSE button.
3	D	95		Change the data until the Y signal level (A) satisfies the specification value.
4				Press the PAUSE button.
5	2	12	00	After setting the data, press the PAUSE button.
6	0	01	00	Set the data. (End)

4. S-C Output Chroma Level Adjustment (VC-199 Board)

Purpose: Set the chroma signal output level.
Adjustment Error: Color of the picture will be thicker or thinner on monitor.

Mode	CAMERA standby
Subject	Internal test pattern (White 70%)
Measurement Point	Chroma signal terminal of S VIDEO terminal (75 terminated)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	94
Specification Value	A = 286 ± 6 mVp-p (NTSC model) A = 300 ± 6 mVp-p (PAL model)

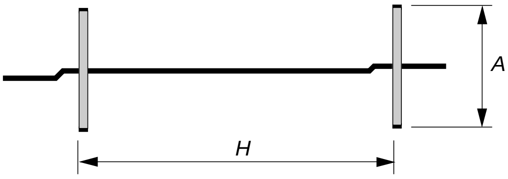


Fig. 5-3-14

Note: Insert the plug into the S video terminal.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	2	12	20	After setting the data, press the PAUSE button.
3	D	94		Change the data until the burst signal level (A) satisfies the specification.
4				Press the PAUSE button.
5	2	12	00	After setting the data, press the PAUSE button.
6	0	01	00	Set the data. (End)

3-5-3. Clock Adjustment

1. IC1900 27MHz XTAL fo adjustment (VC-199 Board)

Set the sub-carrier frequency of the video output signal in VTR mode.

Mode	VTR stop
Signal	No signal
Measurement Point	R1901 (Pin ② of IC1900)
Measuring Instrument	Frequency counter
Adjustment Page	D
Adjustment Address	98
Specified Value	f = 13500000 ± 50 Hz (NTSC) f = 13500000 ± 50 Hz (PAL)

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	D	98		Change the data until the clock frequency (f) satisfies the specification value.
3				Press the PAUSE button.
4	0	01	00	Set the data. (End)

3-5-4. BIST Check

4-1. Playback System Check

1) Set the POWER switch to VTR (or PLAYER) position.
2) Connect the adjustment remote commander and set the HOLD switch to HOLD (SERVICE) position.

1. IC1701 (D1) playback system check

Mode	VTR playback
Signal	BIST signal (Alignment tape XH5-6: NTSC) (Alignment tape XH5-6P: PAL)
Measurement Point	Adjustment remote commander
Measuring Instrument	
Adjustment Page	4
Adjustment Address	14 to 19
Specified Value	NTSC model E5 (Data of page: 4, address: 15) 11 (Data of page: 4, address: 14) C0 to BA (Data of page: 4, address: 17) 6E to 04 (Data of page: 4, address: 16) 33 to B2 (Data of page: 4, address: 19) 59 to 19 (Data of page: 4, address: 18) PAL model 27 (Data of page: 4, address: 15) CA (Data of page: 4, address: 14) DC (Data of page: 4, address: 17) 44 (Data of page: 4, address: 16) A2 (Data of page: 4, address: 19) 03 (Data of page: 4, address: 18)

Check procedure:

Order	Page	Address	Data	Procedure
1				Playback the alignment tape (XH5-6: NTSC, XH5-6P: PAL) in VTR mode.
2	4	11	04	After setting the data, press the PAUSE button.
3	4	11	00	After setting the data, press the PAUSE button.
4	4	13	03	After setting the data, press the PAUSE button. Data returns automatically to 00.
5	4	15 14		When the IC1701 (D1) → IC1501 (U1) playback system is normal, following data will be displayed in page: 4, address: 14 and 15.
6	4	17 16		When the IC1701 (D1) → IC3500 (INDI) playback system is normal, following data will be displayed in page: 4, address: 16 and 17.
7	4	19 18		When the IC1701 (D1) → IC1901 (A1) playback system is normal, following data will be displayed in page: 4, address: 18 and 19.

2. IC1901(A1) playback system check

Mode	VTR playback
Signal	BIST signal (Alignment tape XH5-6: NTSC) (Alignment tape XH5-6P: PAL)
Measurement Point	Adjustment remote commander
Measuring Instrument	
Adjustment Page	4
Adjustment Address	14, 15
Specified Value	NTSC model 7B (Data of page: 4, address: 15) B5 (Data of page: 4, address: 14) PAL model CC (Data of page: 4, address: 15) C0 (Data of page: 4, address: 14)

Check procedure:

Order	Page	Address	Data	Procedure
1				Playback the alignment tape (XH5-6: NTSC, XH5-6P: PAL) in VTR mode.
2	4	11	10	After setting the data, press the PAUSE button.
3	4	11	00	After setting the data, press the PAUSE button.
4	4	13	04	After setting the data, press the PAUSE button. Data returns automatically to 00.
5	4	15 14		When the IC1901 (A1) playback system is normal, following data will be displayed in page: 4, address: 14 and 15.

3. IC1500 (U1) playback system check

Mode	VTR playback
Signal	BIST signal (Alignment tape XH5-6: NTSC) (Alignment tape XH5-6P: PAL)
Measurement Point	Adjustment remote commander
Measuring Instrument	
Adjustment Page	4
Adjustment Address	14, 15, 16, 17
Specified Value	NTSC model 1E (Data of page: 4, address: 15) F2 (Data of page: 4, address: 14) D1 (Data of page: 4, address: 17) 61 (Data of page: 4, address: 16) PAL model 33 (Data of page: 4, address: 15) 7B (Data of page: 4, address: 14) C9 (Data of page: 4, address: 17) A7 (Data of page: 4, address: 16)

Check procedure:

Order	Page	Address	Data	Procedure
1				Playback the alignment tape (XH5-6: NTSC, XH5-6P: PAL) in VTR mode.
2	4	11	08	After setting the data, press the PAUSE button.
3	4	42	01	After setting the data, press the PAUSE button.
4	4	13	07	After setting the data, press the PAUSE button. Data returns automatically to 00.
5	4	42	00	After setting the data, press the PAUSE button.
6	4	11	00	After setting the data, press the PAUSE button.
7	4	15 14		When the IC1500 (U1) → IC1100 (S1) playback system is normal, following data will be displayed in page: 4, address: 14 and 15.
8	4	17 16		When the IC1701 (D1) → IC1500 (U1) playback system is normal, following data will be displayed in page: 4, address: 16 and 17.

4-2. Recording System Check

Note: Perform “Playback System Check” before this check. (Playback the BIST check tape.)

Mode	VTR playback, CAMERA REC
Signal	BIST signal (Alignment tape XH5-6: NTSC) (Alignment tape XH5-6P: PAL)
Measurement Point	Adjusting remote commander
Measuring Instrument	
Adjustment Page	3, 4
Adjustment Address	14, 15, 16, 17, 18, 19, 1A, 1B
Specified Value	Shown in the following check procedures respectively

Check procedure:

<table>
<tr><th>Order</th><th>Page</th><th>Address</th><th>Data</th><th>Procedure</th></tr>
<tr><td>1</td><td></td><td></td><td></td><td>Playback the alignment tape (XH5-6: NTSC, XH5-6P: PAL) in VTR mode.</td></tr>
<tr><td>2</td><td>4</td><td>41</td><td>01</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>3</td><td>4</td><td>0F</td><td>02</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>4</td><td>4</td><td>0E</td><td>01</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>5</td><td>4</td><td>40</td><td>01</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>6</td><td>4</td><td>0F</td><td>0A</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>7</td><td>4</td><td>40</td><td>00</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>8</td><td>4</td><td>40</td><td>01</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>9</td><td>4</td><td>0F</td><td>0E</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>10</td><td>4</td><td>40</td><td>00</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>11</td><td>4</td><td>40</td><td>01</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>12</td><td>4</td><td>0F</td><td>8E</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>13</td><td>4</td><td>40</td><td>00</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>14</td><td></td><td></td><td></td><td>While depressing the HOLD switch of the adjustment remote commander to ON (The service LANC mode), eject the alignment tape then insert the recording tape instead.</td></tr>
<tr><td>15</td><td></td><td></td><td></td><td>While depressing the HOLD switch of the adjustment remote commander to ON (The service LANC mode), move the POWER switch from VIDEO side to the CAMERA side.</td></tr>
<tr><td>16</td><td></td><td></td><td></td><td>Move the CAMERA REC STANDBY to the CAMERA RECORD position.</td></tr>
<tr><td>17</td><td>4</td><td>11</td><td>08</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>18</td><td>4</td><td>42</td><td>01</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>19</td><td>4</td><td>13</td><td>07</td><td>After setting the data, press the PAUSE button. Data returns automatically to 00.</td></tr>
<tr><td>20</td><td>4</td><td>42</td><td>00</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>21</td><td>4</td><td>11</td><td>00</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>22</td><td>4</td><td>17
16</td><td></td><td>When the IC1500 (U1) → IC1503 (T1) playback system is normal, following data will be displayed in page: 4, address: 16 and 17.
<table>
<tr><th>Address</th><th>NTSC model</th><th>PAL model</th></tr>
<tr><td>17</td><td>C6</td><td>F8</td></tr>
<tr><td>16</td><td>90</td><td>3E</td></tr>
</table></td></tr>
<tr><td>23</td><td>3</td><td>01</td><td>0D</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>24</td><td>4</td><td>1C</td><td>FF</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>25</td><td>4</td><td>11</td><td>04</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>26</td><td>4</td><td>11</td><td>00</td><td>After setting the data, press the PAUSE button.</td></tr>
<tr><td>27</td><td>4</td><td>13</td><td>03</td><td>After setting the data, press the PAUSE button. Data returns automatically to 00.</td></tr>
<tr><td>28</td><td>4</td><td>15
14</td><td></td><td>When the IC1503 (T1) → IC1701 (D1) playback system is normal, following data will be displayed in page: 4, address: 14 and 15.
<table>
<tr><th>Address</th><th>NTSC model</th><th>PAL model</th></tr>
<tr><td>15</td><td>C6</td><td>F8</td></tr>
<tr><td>14</td><td>90</td><td>3E</td></tr>
</table></td></tr>
</table>

Check procedure:

<table>
<tr><th>Order</th><th>Page</th><th>Address</th><th>Data</th><th>Procedure</th></tr>
<tr><td>29</td><td>4</td><td>17
16</td><td></td><td>When the IC1701 (D1) → IC3501 (INDI) playback system is normal, following data will be displayed in page: 4, address: 16 and 17.
<table>
<tr><th>Address</th><th>NTSC model</th><th>PAL model</th></tr>
<tr><td>17</td><td>67</td><td>BD</td></tr>
<tr><td>16</td><td>C4</td><td>97</td></tr>
</table></td></tr>
<tr><td>30</td><td>4</td><td>19
18</td><td></td><td>When the IC1901 (A1) → IC1701 (D1) playback system is normal, following data will be displayed in page: 4, address: 18 and 19.
<table>
<tr><th>Address</th><th>NTSC model</th><th>PAL model</th></tr>
<tr><td>19</td><td>76</td><td>CE</td></tr>
<tr><td>18</td><td>B9</td><td>E7</td></tr>
</table></td></tr>
<tr><td>31</td><td>4</td><td>1B
1A</td><td></td><td>When the IC1701 (D1) → IC1601 (DX) playback system is normal, following data will be displayed in page: 4, address: 1A and 1B.
<table>
<tr><th>Address</th><th>NTSC model</th><th>PAL model</th></tr>
<tr><td>1B</td><td>FF</td><td>1A</td></tr>
<tr><td>1A</td><td>67</td><td>54</td></tr>
</table></td></tr>
<tr><td>32</td><td></td><td></td><td></td><td>Turn the HOLD switch of the adjustment remote commander to OFF (The service LANC mode is released). Turn off the main power of the camera.</td></tr>
</table>

3-6. IR TRANSMITTER ADJUSTMENTS

3-6-1. Preparations

Switch setting:
LASER LINK .... ON (Red LED is lit)

1. Equipment Connection

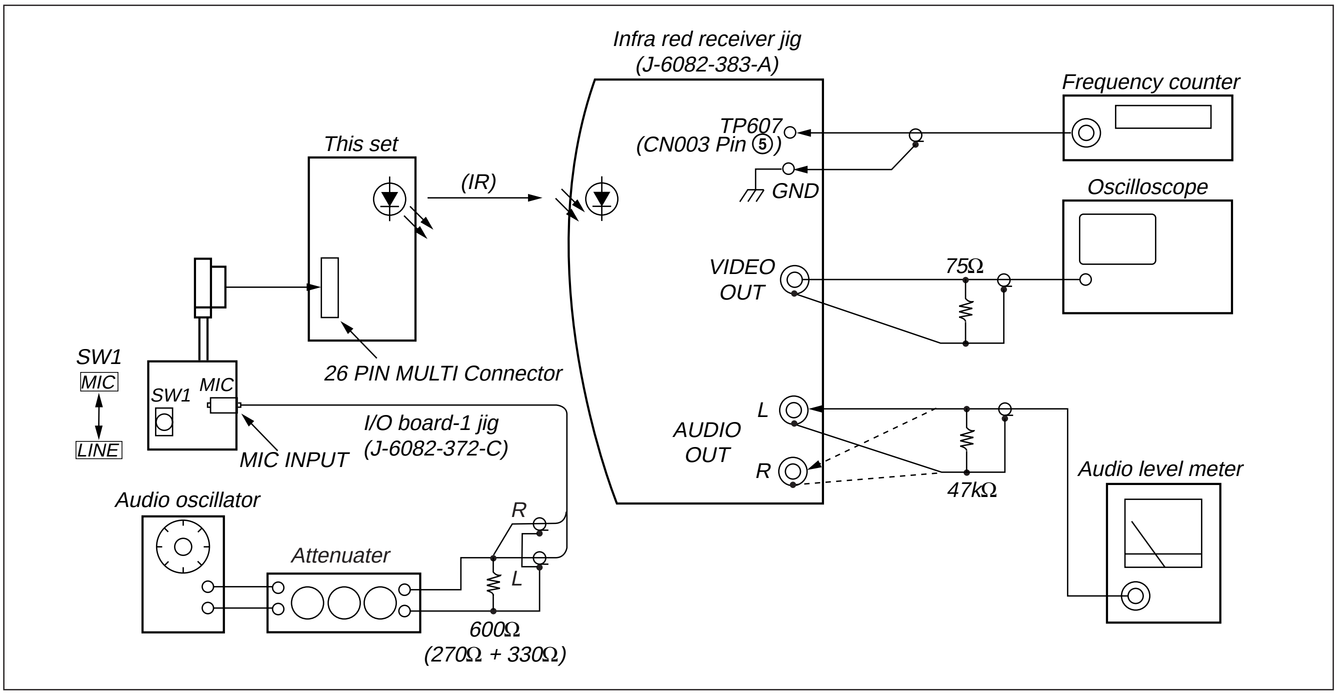

Infra red receiver jig
(J-6082-383-A)
Frequency counter
This set
(IR)
TP607
(CN003 Pin ⑤)
GND
Oscilloscope
VIDEO
OUT
75Ω
SW1
MIC
LINE
SW1
MIC
26 PIN MULTI Connector
I/O board-1 jig
(J-6082-372-C)
MIC INPUT
AUDIO
OUT
L
R
Audio level meter
47kΩ
Audio oscillator
Attenuater
R
L
600Ω
(270Ω + 330Ω)

Fig. 5-3-15

Resistor	75Ω:	1-247-804-11
	270Ω:	1-249-410-11
	330Ω:	1-249-411-11
	47kΩ:	1-249-437-11

3-6-2. IR Video Carrier Frequency Adjustment

Purpose:	Adjusts the carrier frequency when modulating the video signal.
Adjustment Error:	Loss of synchronization or loss of color.

Mode	CAM-STANDBY
Signal	Any signal
Measurement Point	TP607 of the IR receiver jig or IC8401 pin ⑯ of VC-199 board.
Measuring Instrument	Frequency counter
Adjustment Page	D
Adjustment Address	90
Specification Value	f=11.85 ± 0.05 MHz

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	2	12	10	After setting the data, press the PAUSE button.
3	D	90		Change data using PLAY and STOP buttons so that the video carrier frequency (f) satisfies the specification.
4				Press the PAUSE button.
5	2	12	00	After setting the data, press the PAUSE button.
6	0	01	00	Set the data. (End)

3-6-3. IR Video Deviation Adjustment

Purpose: Adjusts deviation when modulating the video signal.

Adjustment Error: Too bright or too dark overall picture. Over modulation picture. (If deviation is too wide, or too narrow.)

Mode	CAM-STANDBY
Signal	Internal test pattern (White 75%)
Measurement Point	• VIDEO OUTPUT terminal of IR receiver jig (Terminated in 75Ω)
Measuring Instrument	Oscilloscope
Adjustment Page	D
Adjustment Address	91
Specification Value	A=0.80 ± 0.04 Vp-p

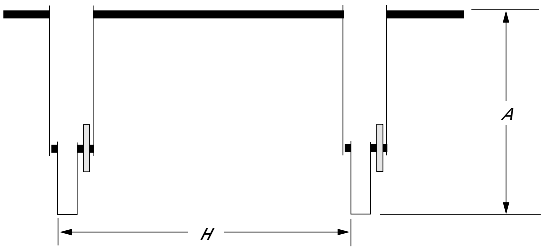


Fig. 5-3-16

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2	2	12	20	After setting the data, press the PAUSE button.
3	D	91		Change data using PLAY and STOP buttons so that the Y signal level (A) satisfies the specification.
4				Press the PAUSE button.
5	2	12	00	After setting the data, press the PAUSE button.
6	0	01	00	Set the data. (End)

3-6-4. IR Audio Deviation Adjustment

Purpose: Adjusts deviation when modulating the audio signal.

Adjustment Error: Loss of tape inner change ability.

Mode	CAMERA-EE
Signal	EXT MIC terminal (L-ch and R-ch) of the I/O board-1 jig 400Hz, –66dBs
Measurement Point	AUDIO output terminal (L/R) of IR receiver jig
Measuring Instrument	Audio level meter
Adjustment Page	D
Adjustment Address	92
Specification Value	Signal level: –7.5 + 1.0dBs Right and left level difference: 2dB or below

Adjustment procedure:

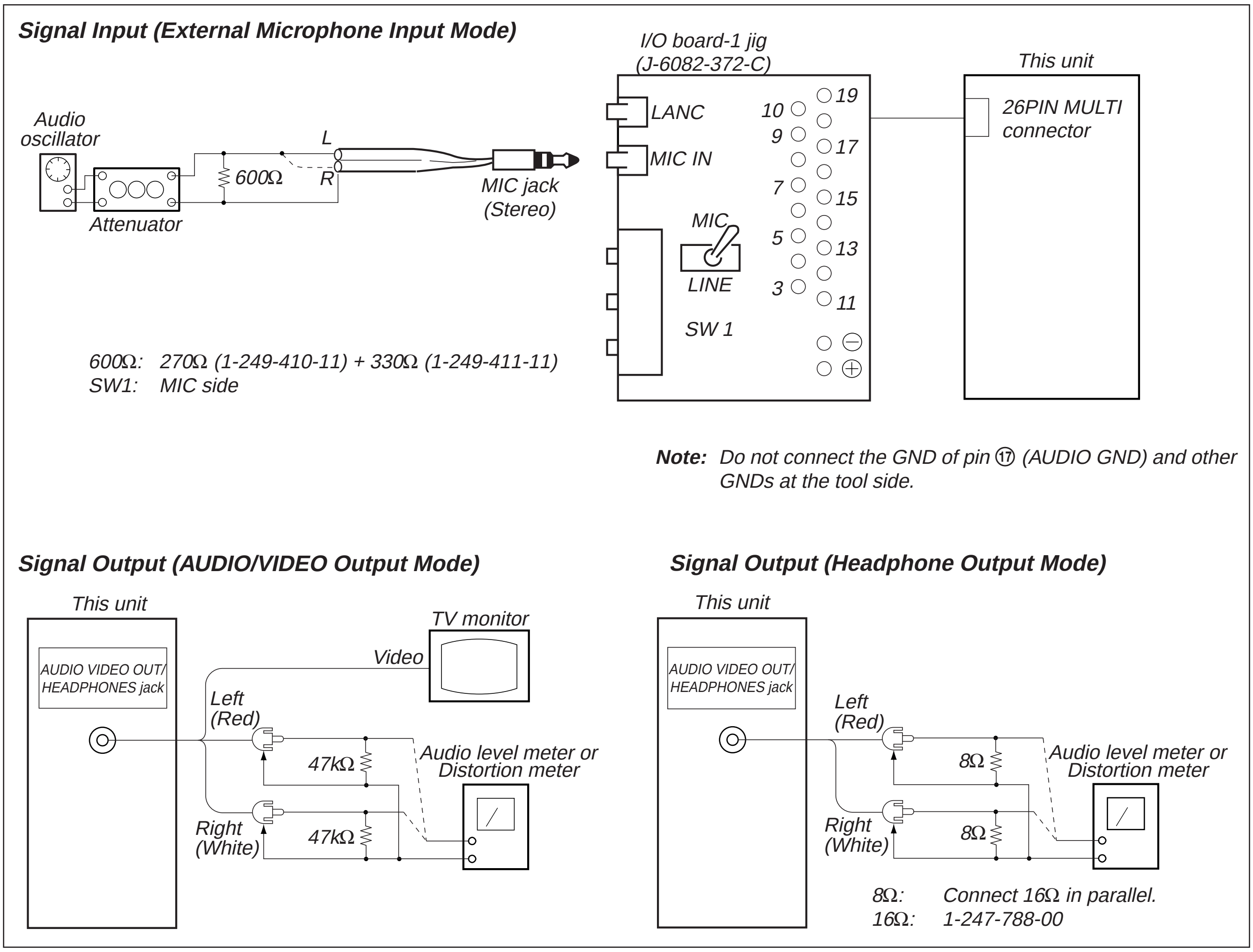
Order	Page	Address	Data	Procedure
1	0	01	01	Set the data. (Preparation)
2				Input the audio signal of 400 Hz, –66dBs to the EXT MIC terminal (L-ch and R-ch) of the I/O board-1 jig.
3	D	92		Press the PLAY and STOP buttons until the audio signal level of both L-ch and R-ch satisfies the specifications.
4				Press the PAUSE button.
5				Confirm the 400Hz audio signal level and right and left difference level meet the specification value. When they are out of specification, repeat from the item 2).
6	0	01	00	Set the data. (End)

3-7. AUDIO SYSTEM ADJUSTMENTS

3-7-1. Preparations

Switch Settings:
Volume (ME-4850)9th position decreased from MAX
(8th position increased from MIN)

Connection of Audio System Measuring Devices:
Connect the audio system measuring devices as shown in Fig. 5-3-17.


Signal Input (External Microphone Input Mode)

I/O board-1 jig
(J-6082-372-C)
This unit
26PIN MULTI connector
Audio oscillator
Attenuator
L
R
600Ω
MIC jack (Stereo)
LANC
MIC IN
MIC
LINE
SW 1
10
9
7
5
3
19
17
15
13
11
⊖
⊕

600Ω: 270Ω (1-249-410-11) + 330Ω (1-249-411-11)
SW1: MIC side

Note: Do not connect the GND of pin ⑰ (AUDIO GND) and other GNDs at the tool side.

Signal Output (AUDIO/VIDEO Output Mode)

This unit
AUDIO VIDEO OUT/ HEADPHONES jack
TV monitor
Video
Left (Red)
Right (White)
47kΩ
47kΩ
Audio level meter or Distortion meter

Signal Output (Headphone Output Mode)

This unit
AUDIO VIDEO OUT/ HEADPHONES jack
Left (Red)
Right (White)
8Ω
8Ω
Audio level meter or Distortion meter

8Ω: Connect 16Ω in parallel.
16Ω: 1-247-788-00

Fig. 5-3-17

3-7-2. Playback Level Check

Purpose: Check the playback level at each fs of 32kHz, 48kHz and 44.1kHz. Check also the de-emphasis characteristics at 44.1kHz.

Mode	VTR PB
Signal	Audio check reference tape (XH5-3 : NTSC, XH5-3P : PAL)
Measurement Point	Right and left channels of AUDIO VIDEO OUT/HEADPHONES jack
Measuring Instrument	Audio level meter and frequency counter
Specification Value	32kHz mode segment : 1 kHz 3.0 ± 3.0 dBs 48 kHz mode segment : 1 kHz 3.0 ± 3.0 dBs 44.1 kHz mode segment : The 7.35 kHz signal level at EMP ON is lower than that at EMP OFF by –6 ± 2 dBs.

Check procedure:

Order	Procedure
1	Confirm that the playback signal level satisfies the specification value.

Switch settings:

Headphone volume button (ME-4850 switch block) .... 9th position decreased from MAX (8th position increased from MIN) (Check on the EVF or LCD).

3-7-3. EXT MIC Input Gain and L/R Balance Check

Mode	Camera mode record
Signal	1 kHz – 44 dBs signal : MIC (I/O board-1 jig) jack left and right channels
Measurement Point	AUDIO VIDEO OUT/ HEADPHONES jack, left and right channels
Measuring Instrument	Audio level meter
Specification Value	Output level of L and R channels = –7.5 ± 3 dBs Level difference between L and R channels = 2 dBs or less

Note 1: Set SW1 on I/O board-1 jig to MIC.
Note 2: Impose a 47 kΩ resistance to the left AUDIO VIDEO OUT/HEADPHONES jack, and turn the power ON from OFF.

Check procedure:

Order	Procedure
1	Input the 1 kHz – 44 dBs signal to the MIC (I/O board-1 jig) jack left and right channels.
2	Confirm that the signal levels and level difference between the L and R channels satisfies the specification value.

3-7-4. EXT MIC Input Separation Check

Mode	Camera mode record
Signal	1kHz – 44 dBs signal : MIC (I/O board-1 jig) jack right channel only. (Connect the left channel of the MIC (I/O board-1 jig) with GND).
Measurement Point	AUDIO VIDEO OUT/ HEADPHONES jack, right channel
Measuring Instrument	Audio level meter
Specification Value	– 40 dBs or less (IHF-A filter on, 20 kHz low-pass filter on)

Note 1: Set SW1 on I/O board-1 jig to MIC.
Note 2: Impose a 47 kΩ resistance to the left AUDIO VIDEO OUT/HEADPHONES jack, and turn the power ON from OFF.

Check procedure:

Order	Procedure
1	Connect 1kHz, – 44 dBs signal to the right channel only of the MIC (I/O board-1 jig). (Connect the left channel of the MIC (I/O board-1 jig) with GND.)
2	Confirm that the signal level of the left channel of the AUDIO VIDEO OUT/HEADPHONES jack satisfies the specification value.

3-7-5. EXT MIC Input Distortion Factor Check

Mode	Camera mode record
Signal	1kHz – 44 dBs signal : MIC (I/O board-1 jig) jack left and right channels
Measurement Point	AUDIO VIDEO OUT/ HEADPHONES jack, left and right channels
Measuring Instrument	Distortion level meter
Specification Value	0.4 % or less (20 kHz LPF on)

Note 1: Set SW1 on I/O board-1 jig to MIC.
Note 2: Impose a 47 kΩ resistance to the left AUDIO VIDEO OUT/HEADPHONES jack, and turn the power ON from OFF.

Check procedure:

Order	Procedure
1	Input the 1kHz – 44 dBs signal to the MIC (I/O board-1 jig).
2	Confirm that the distortion factor satisfies the specification value.

3-7-6. EXT MIC Input Noise Level Check

Mode	Camera mode record
Signal	No input signal : Connect the left and right channel of MIC (I/O board-1 jig) with GND.
Measurement Point	AUDIO VIDEO OUT/ HEADPHONES jack, left and right channels
Measuring Instrument	Audio level meter
Specification Value	– 45 dBs or less (IHF-A filter on, 20 kHz low-pass filter on)

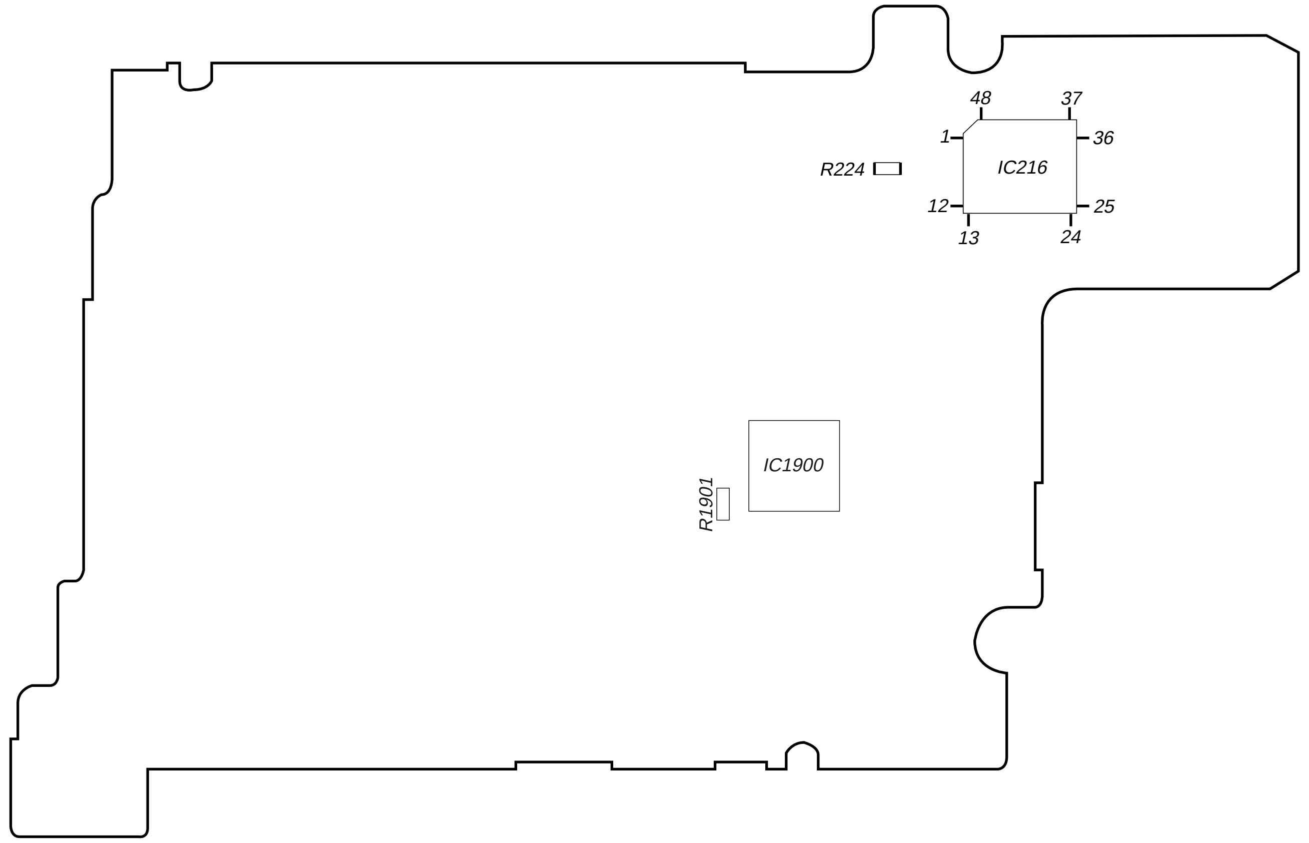
Note 1: Set SW1 on I/O board-1 jig to MIC.
Note 2: Impose a 47 kΩ resistance to the left AUDIO VIDEO OUT/HEADPHONES jack, and turn the power ON from OFF.

Check procedure:

Order	Procedure
1	Confirm that the noise level satisfies the specification value.

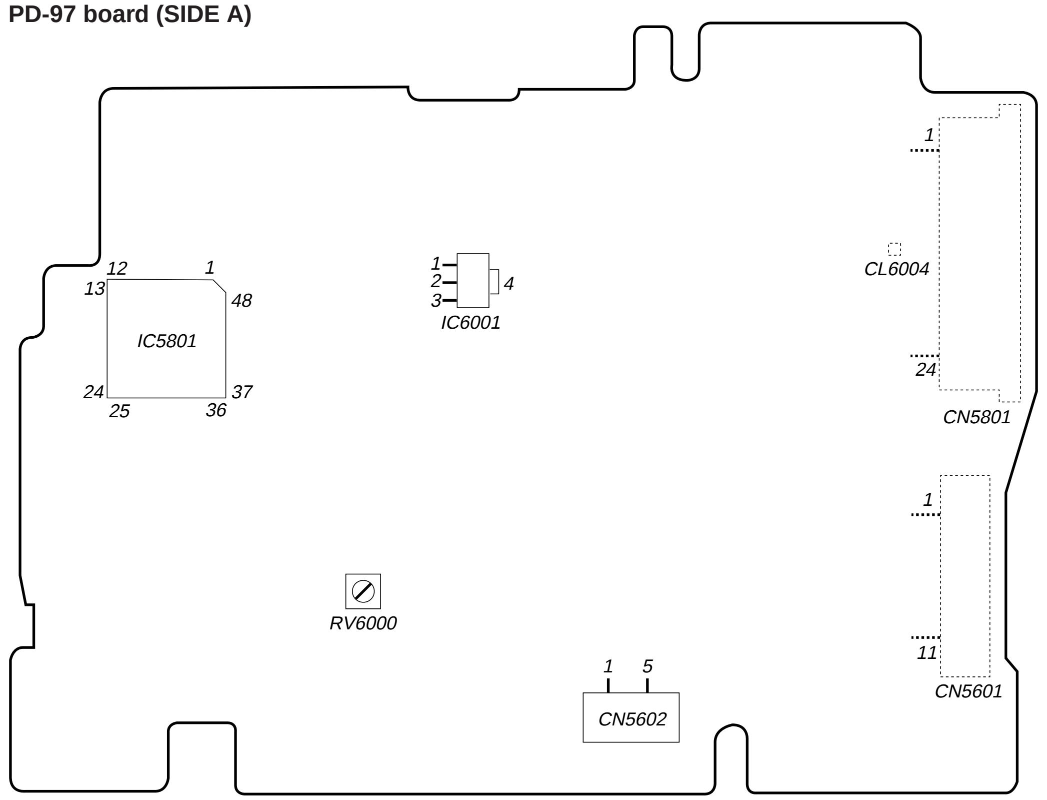
3-8. ARRANGEMENT DIAGRAM FOR ADJUSTMENT PARTS

VC-199 board (SIDE A)



48
37
1
36
IC216
R224
12
25
13
24
IC1900
R1901

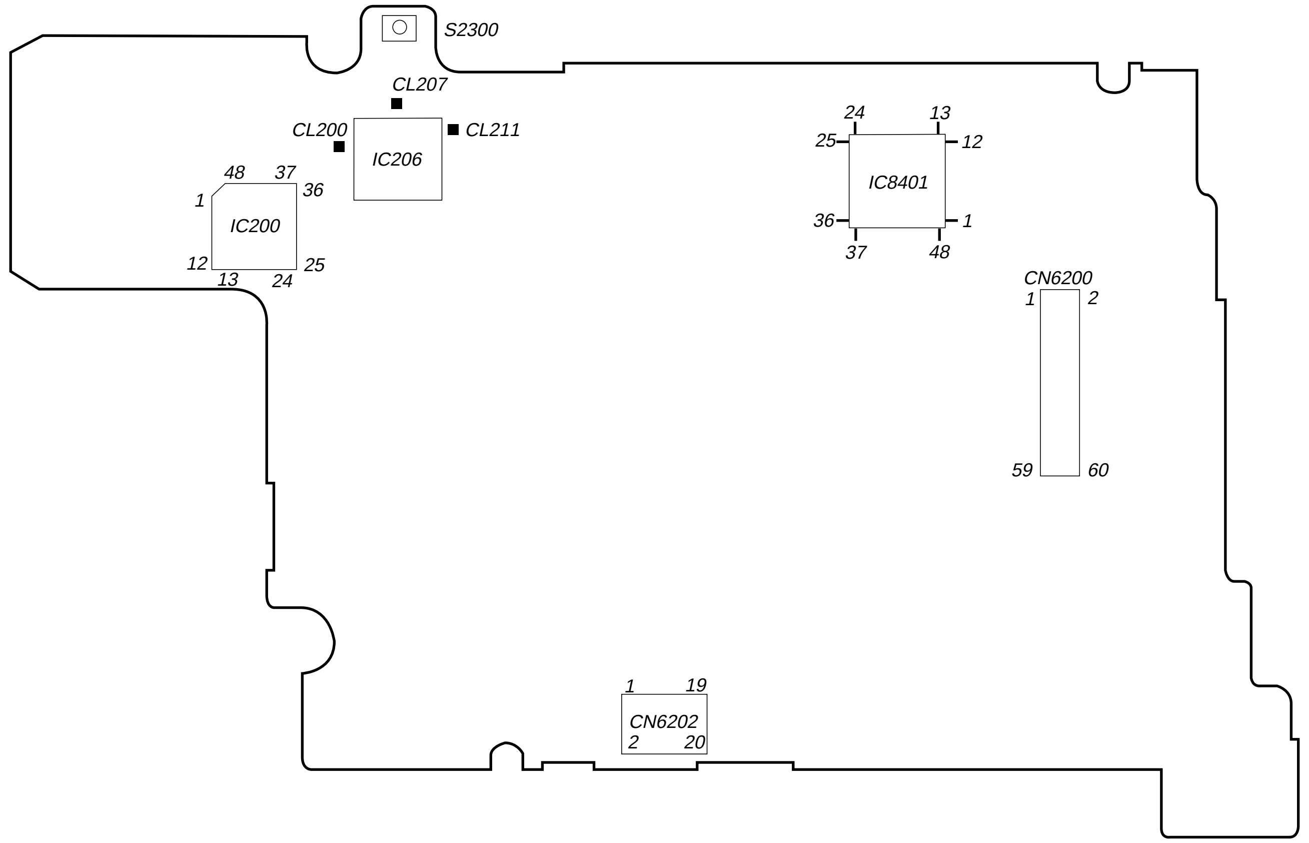
PD-97 board (SIDE A)



1
CL6004
24
CN5801
12
1
13
48
IC5801
24
37
25
36
1
2
3
4
IC6001
1
11
CN5601
RV6000
1
5
CN5602

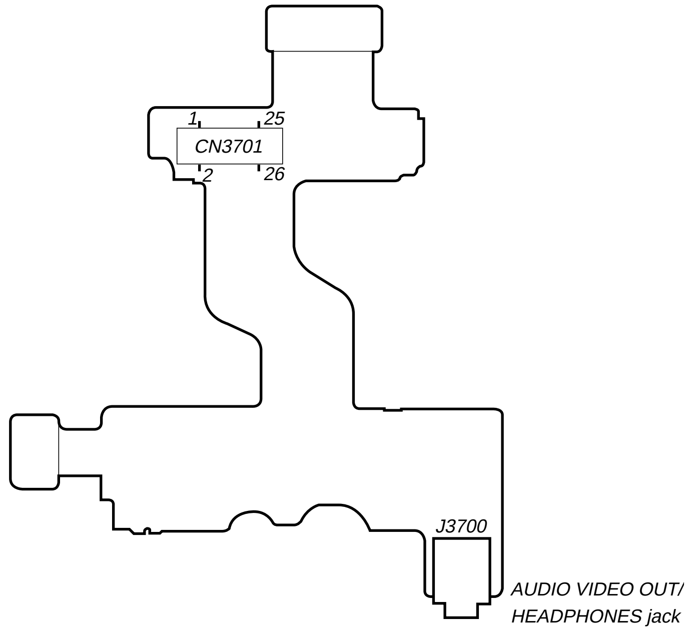
Note: CN5801, CN5601 and CL6004 are mounted to the SIDE B.

VC-199 board (SIDE B)



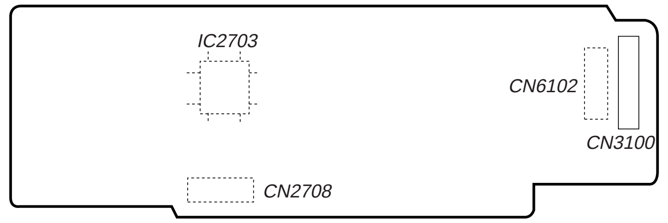
S2300
CL207
CL200
CL211
IC206
48
37
1
36
IC200
12
25
13
24
24
13
25
12
IC8401
36
1
37
48
CN6200
1
2
59
60
1
19
CN6202
2
20

DD-103 board (SIDE A)



1
25
CN3701
2
26
J3700
AUDIO VIDEO OUT/
HEADPHONES jack

MR-33 board (SIDE A)



IC2703
CN6102
CN3100
CN2708

Note: CN6102, CN2708 and IC2703 are mounted to the SIDE B.

5-4. SERVICE MODE

4-1. ADJUSTMENT REMOTE COMMANDER (RM-95 UPGRADED)

To perform adjustment, the adjustment data stored in the non-volatile memory must be rewritten using the adjustment remote commander (RM-95 upgraded).
The adjustment remote commander uses the remote commander signal line (LANC) to interactively communicate with the merchandise. The page, address and up/down command data are sent from the adjustment remote commander to the merchandise. In return, the page, address and data are sent to the adjustment remote commander from the merchandise.

1. Using the Adjustment Remote Commander

1) Connect the adjustment remote commander to the 26-pin MULTI connector via the I/O board-1 jig (J-6082-372-C).
2) Set the NOR-ADJ (or HOLD) switch of the adjustment remote commander to the “ADJ” (or ON) (service) position.
   If the adjustment remote commander is correctly connected, the adjustment remote commander’s LED will show the display as shown in Fig. 5-4-1.
3) Bit value discrimination
   It is necessary to discriminate between the bit values with the data displayed on the adjustment remote commander for all following items. Identify whether the bit value is “1” or “0” with the use of the following diagram.

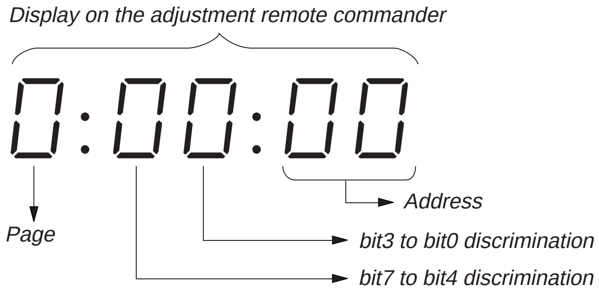

Display on the adjustment remote commander
0:00:00
Address
Page
bit3 to bit0 discrimination
bit7 to bit4 discrimination

Fig. 5-4-1

4) The adjustment remote controller is operated as follows:

- Changing the page
  The pages increase when the EDIT SEARCH (+) button is pressed and decrease when the EDIT SEARCH (–) button is pressed. Altogether there are 16 pages from page “0” to page “F”.
- Changing the address
  The address increases when the FF (▶▶) button is pressed, and decreases when the REW (◀◀) button is pressed. Altogether there are 256 addresses from address “00” to address “FF”. Some addresses, which are not used during adjustment, do not appear.

Hexadecimal notation	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
LCD Display	0	1	2	3	4	5	6	7	8	9	A	b	c	d	E	F
Decimal notation conversion value	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

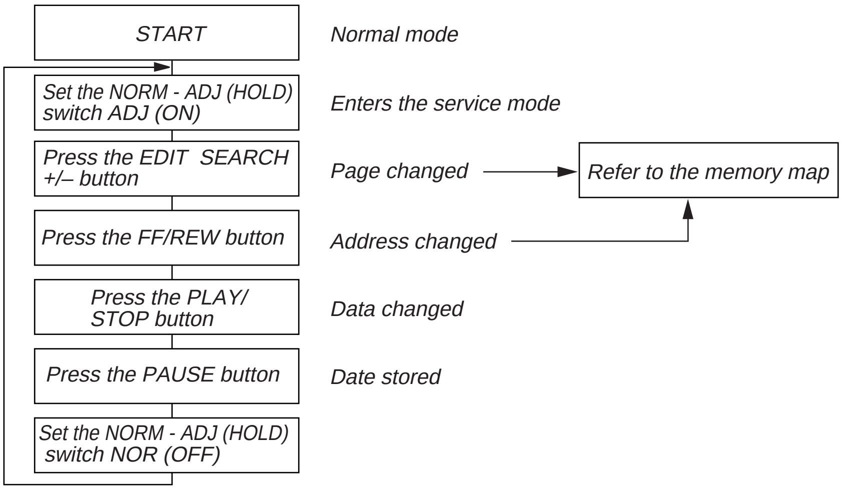
Display on the adjustment remote commander	Bit values			
	bit3 or bit7	bit2 or bit6	bit1 or bit5	bit0 or bit4
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
Ⓐ 8	1	0	0	0
9	1	0	0	1
A (A)	1	0	1	0
B (b)	1	0	1	1
C (c)	1	1	0	0
D (d)	1	1	0	1
Ⓑ E (E)	1	1	1	0
F (F)	1	1	1	1

Example: If “8E” is displayed on the adjustment remote commander, the bit values for bit7 to bit4 are shown in the Ⓐ column, and the bit values for bit3 to bit0 are shown in the Ⓑ column.

- Taking note the already-stored adjustment data
  The previous adjustment can be erased if the adjustment remote commander is incorrectly handled. To prevent this, it is recommended that all the stored adjustment data be noted down on the attached page F address list.
- Changing the data (Data setting)
  The data increases when the PLAY (▶) button is pressed, and decreases when the STOP (■) button is pressed. Altogether there 256 data from data “00” to data “FF”.
- Storing the data
  Press the PAUSE button to store the adjustment data (pages E and F) into the non-volatile memory.
  (If the PAUSE button is not pressed after completing the adjustment, the new adjustment data will not be stored in the non-volatile memory.)

5) After completing all adjustments, turn off the main power supply (8.4 V) once. This releases the adjustment mode (all modes except for pages E and F).

[Sequence of Service Modes Using the Adjustment Remote Commander]


START
Normal mode
Set the NORM - ADJ (HOLD) switch ADJ (ON)
Enters the service mode
Press the EDIT SEARCH +/– button
Page changed
Refer to the memory map
Press the FF/REW button
Address changed
Press the PLAY/ STOP button
Data changed
Press the PAUSE button
Date stored
Set the NORM - ADJ (HOLD) switch NOR (OFF)

Command Name	Command Function	Normal LANC Command
Page Up	Page + 1	Edit Search +
Page Down	Page – 1	Edit Search –
Direct Page Set	Sets the specified page	Event Clear
Address Up	Address + 1	Fast Forward
Address Down	Address – 1	Rewind
Data Up	Data + 1	Play Back
Data Down	Data – 1	Stop
Store	Stores data in the EE PROM.	Pause

2. Precautions When Using the Adjustment Remote Commander

Mishandling of the adjustment remote commander may erase the correct adjustment data which has already been stored in the memory. To prevent this, it is recommended that all adjustment data is noted down on the attached page F address list before starting adjustments in addition to all new adjustment data after the completion of each adjustment step.

Reference: Conversion between the hexadecimal number and decimal number.

In some adjustment items, data appears in hexadecimal numbers on the DDS display or on the adjustment remote commander. Maintenance engineers are expected to convert the displayed hexadecimal numbers to the corresponding decimal numbers using the following conversion table.

Make a required calculation described in each adjustment item. Then reconvert the result of calculation back from the decimal numbers to the corresponding hexadecimal numbers using the following conversion table.

Hexadecimal-decimal Conversion Table

Lower digit of hexadecimal Upper digit of hexadecimal	0	1	2	3	4	5	6	7	8	9	A (A)	B (b)	C (c)	② D (d)	E (E)	F (F)
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
2	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
3	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
4	64	65	66	67	68	69	70	71	72	73	74	77	76	77	78	79
5	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95
6	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
7	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127
8	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143
9	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159
A (A)	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175
① B (b)	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191
C (c)	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207
D (d)	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223
E (E)	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239
F (F)	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255

Note : The characters shown in the parenthesis ( ) shown the display on the adjustment remote commander.
(Example) If the DDS display or the adjustment remote commander shows BD (bd);
Because the upper digit of the adjustment number is B (b), and the lower digit is D (d), the meeting point "189" of ① and ② in the above table is the corresponding decimal number.

4-2. SERVICE MODE

4-2-1. Setting the Test Mode

Page D	Address 10

Data	Function
00	Normal
01	Forced camera power ON
02	Forced VTR power ON
03	Forced camera + VTR power ON

- Set/release each test mode. Set page: 0, address: 01, data: 01 before setting the data of page D.
- For page D, the data set is recorded in the non-volatile memory by pressing the PAUSE button of the adjusting remote commander. In this case, take note that the test mode will not be exited even when the main power is turned off (8.4 Vdc).
- After completing adjustments/repairs, be sure to return the data of this address to 00, and press the PAUSE button of the adjusting remote commander.
  Set page: 0, address: 01, data: 00.

4-2-2. Use History Check

Page 2	Address 35 to 3D

Address	Function		Remarks
35	Drum rotation counted time (BCD code)	Minute	1 to 59 minute
36		Hour (L)	1 to 99 hour
37		Hour (H)	100 to 9000 hour
38	User initial power on date (BCD code)	Year	After setting the clock, set the date of power on next.
39		Month	
3A		Day	
3B	Final condensation occurrence date (BCD code)	Year	
3C		Month	
3D		Day	

How to use:

1) The record of use data is displayed at addresses : 35 to 3D on page 2.

Note: This data will be cleared when the button battery is removed (reset). Be sure to read the data before disassembling the set.

4-2-3. Emergency Memory Address

Page C	Address 30 to 3B

Address	Contents
30	EMG code when the first emergency has occurred.
32	Upper : MSW code of the machine status in which transition has started then the first emergency occurred. Lower : MSW code when the first emergency has occurred.
33	Lower : MSW code of the machine movement target when the first emergency has occurred.
34	EMG code when the second emergency has occurred.
36	Upper : MSW code of the machine status in which transition has started then the second emergency occurred. Lower : MSW code when the second emergency has occurred.
37	Lower : MSW code of the machine movement target when the second emergency has occurred.
38	EMG code when the last emergency has occurred.
3A	Upper : MSW code of the machine status in which transition has started then the last emergency occurred. Lower : MSW code when the last emergency has occurred.
3B	Lower : MSW code of the machine movement target when the last emergency has occurred.

When there are no emergency, data 00 will be written in the above address (30 to 3B). When the first emergency occurs, the data corresponding to the emergency will be written in the first emergency address (30 to 33). In the same way, when the second emergency occurs, the data corresponding to the emergency will be written in the second emergency address (34 to 37).
The data corresponding to the emergency occurring last will be written in the last emergency address (38 to 3B).
Therefore the data of addresses (38 to 3B) are renewed each time an emergency occurs.

Note: Be sure to rewrite the data of addresses 30 to 3B to 00 after repairs/adjustment.

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	01	01	Set the data.
2	C	30 31 32 33 34 35 36 37 38 39 3A 3B	00	After setting the data to each address, press the PAUSE button.
3	0	01	00	Set the data.

4-2-4. EMG Code (Emergency Code)

The emergency codes are stored in the addresses : 30, 34 and 38 corresponding to the types of errors occurred. Types of error code are shown in the following table.

Code	Error Status
00	No error (Initial state)
10	Loading motor time-out during LOAD
11	Loading motor time-out during UNLOAD
22	T reel error
23	S reel error
30	Capstan FG error
40	FG error during drum start-up
42	FG error during normal drum rotation

4-2-5. MSW Code

MSW when errors occur:

Information on MSW (mode SW) when errors occur

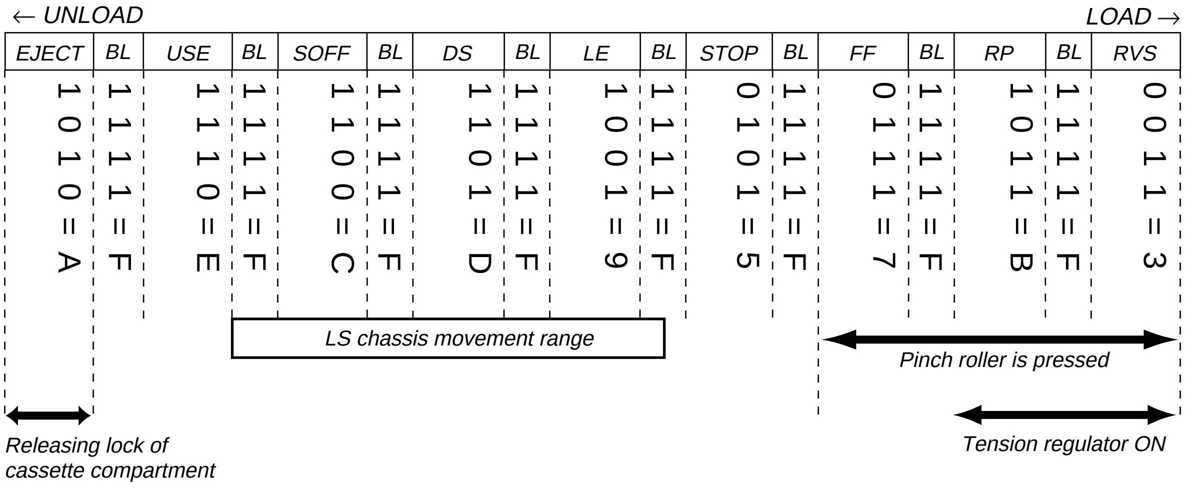
MSW when movement starts:

Information on MSW when movements starts when the mechanism position is moved (When the L motor is moved)

MSW of target of movement:

Information on target MSW of movement when the mechanism position is moved.

Mechanism Position


← UNLOAD
LOAD →
EJECT
BL
USE
BL
SOFF
BL
DS
BL
LE
BL
STOP
BL
FF
BL
RP
BL
RVS
1 0 1 0 = A
1 1 1 1 = F
1 1 1 0 = E
1 1 1 1 = F
1 1 0 0 = C
1 1 1 1 = F
1 1 0 1 = D
1 1 1 1 = F
1 0 0 1 = 9
1 1 1 1 = F
0 1 0 1 = 5
1 1 1 1 = F
0 1 1 1 = 7
1 1 1 1 = F
1 0 1 1 = B
1 1 1 1 = F
0 0 1 1 = 3
LS chassis movement range
Pinch roller is pressed
Releasing lock of
cassette compartment
Tension regulator ON

Position	Code	Contents
EJECT	A	Position at which the cassette compartment lock is released, and position at the farthest unload side mechanically at which the mechanism can move no further in the UNLOAD direction.
BL	F	BLANK code, at the boundary between codes. The mechanism will not stop at this code during operations. (Excluding LOAD/UNLOAD)
USE	E	EJECT completion position. When the cassette is ejected, the mechanism will stop at this position. Cassette IN standby. The guide will start protruding out as the mechanism moves towards the LOAD position.
SOFF	C	Code during loading. Code output while the LS chassis is moving.
DS	D	LS operations and guide loading are performed here.
LE	9	Current limiter is turned off.
STOP	5	Stop position in the loading state. The pinch roller separates, the tension regulator returns, and the brake is imposed on both reels.
FF	7	FF position. The tension regulator is half on. This position is not used except for the FF mode.
RP	B	PB, REC, Cue, Pause, FX2, FWD-SL positions. When the pinch roller is pressed, and the tension regulator is ON, the mechanism is operating at this position in modes in which normal images are shown.
RVS	3	Reverse running position. REW, REV, RX1, RX2, and RVS-SLOW are performed at this position.
NULL	0	Code not existing in the MD. When errors occur when the loading motor is not driving, this code is memorized.

4-2-6. Key Input Check (A/D Port)

• FK-4850 block and ME-4850 block

Display data Address	00 to 0F	10 to 47	48 to 75	76 to A4	A5 to E7	E8 to FF
5C (KEY AD IN 0)	(■) STOP FK, S4	(◀◀) REW FK, S5	(▷) PB FK, S6	(▶▶) FF FK, S7	FADER FK, S3	
5D (KEY AD IN 1)	(❚❚) PAUSE FK, S8	EXPOSURE FK, S9	EXECUTE FK, S11	5 sec REC FK, S12	PUSH REC FK, S12	(●) NORMAL REC FK, S12
5E (KEY AD IN 2)	MENU ME, S1	TITLE ME, S2	VOLUME + ME, S3	VOLUME – ME, S4	END SEARCH ME, S5	
5F (KEY AD IN 3)	EDIT SEARCH (–) ME, S6	EDIT SEARCH (+) ME, S7	LCD BRIGHT (–) ME, S8	LCD BRIGHT (+) ME, S9	DISPLAY ME, S10	
60 (KEY AD IN 4)			IR ON/OFF FK, S2	INFINITY FK, S14	A.F./M.F. FK, S13	
61 (KEY AD IN 5)					PANEL CLOSE (VC-199 board S2300)	LCD PANEL OPEN (VC-199 board S2300)
62 (KEY AD IN 6)	LCD PANEL (REVERSE) PD-97 board			LCD PANEL (NORMAL) PD-97 board		

FK: FK-4850 block
ME: ME-4850 block

Adjustment procedure:

Order	Page	Address	Data	Procedure
1	0	00	00	Set the data.
2	2	04	08	Set the data.
3	2	5C to 62		The pressed key can be known from the display data of each address.

4-2-7. Page F Address List

Note 1: The initial value of the adjustment data is the data immediately after execution of Page F data initialization, and Page F data modification. They are different from the value after all adjustments are executed.

Note 2: Some fixed values in blanks in the table are not shown because they are different in destination. When requiring input the data, copy the data built in the same model.

Address	Adjustment Data		Function
	Initial Value	Memo Column	
00		Fixed	
01 to 0F	00	Fixed	
10	00	Fixed	
11	00	Fixed	
12	7D	Fixed	
13		Fixed	
14		Fixed	
15	02	Fixed	
16	3B	Fixed	
17	00	Fixed	
18	7C	Fixed	
19	80	Fixed	
1A	1F	Fixed	
1B	40		
1C	A9		Orignal 36MHz Oscillation
1D	2E	Fixed	
1E	80		HALL Adjustment
1F	80		HALL Adjustment
20	B4		HALL Adjustment Auto White Balance Reference data
21	55		HALL Adjustment Auto White Balance Reference data
22	86		HALL Adjustment Auto White Balance Reference data
23	7B		HALL Adjustment Auto White Balance Reference data
24	2C		Flange back Adjustment
25	17		Flange back Adjustment
26	78		Flange back Adjustment
27	1D		Flange back Adjustment
28	FB		Flange back Adjustment
29	12		Flange back Adjustment
2A	00	Fixed	
2B	00	Fixed	
2C	40		MAX GAIN Adjustment
2D	1C		
2E	36		Color Reproduction Adjustment
2F	C1		
30	3F		Color Reproduction Adjustment
31	40		
32	40		
33	27		
34	89		Auto White Balance Adjustment
35	59		Auto White Balance Adjustment
36	38		IRIS IN/OUT Adjustment
37	41		IRIS IN/OUT Adjustment
38	23		Flange Back Adjustment
39	00		Flange Back Adjustment
3A	19		Flange Back Adjustment

Table. 5-4-1 (1)

Address	Adjustment Data		Function
	Initial Value	Memo Column	
3B	00		Flange Back Adjustment
3C	27		Flange Back Adjustment
3D	00	Fixed	
3E	00	Fixed	
3F	00	Fixed	
40	00		
41	60		Steady Shot Correction Adjustment
42	60		Steady Shot Correction Adjustment
43	00	Fixed	
44	00	Fixed	
45	00	Fixed	
46	42	Fixed	
47	4E	Fixed	
48	44	Fixed	
49	41	Fixed	
4A	44	Fixed	
4B	04	Fixed	
4C	00	Fixed	
4D	7A		PLL Adjustment
4E	00	Fixed	
4F	10	Fixed	
50		Fixed	
51	39	Fixed	
52	8C	Fixed	
53			
54	41	Fixed	
55	16	Fixed	
56	47	Fixed	
57	40	Fixed	
58	75	Fixed	
59	83	Fixed	
5A	89	Fixed	
5B	A9	Fixed	
5C	A5	Fixed	
5D	68	Fixed	
5E	6C	Fixed	
5F	00	Fixed	
60	4A	Fixed	
61	F0	Fixed	
62	00	Fixed	
63	03	Fixed	
64	27	Fixed	
65	D2	Fixed	
66	00	Fixed	
67	40	Fixed	
68	BF	Fixed	
69	FF	Fixed	
6A	C2	Fixed	

Table. 5-4-1 (2)

No mark: Common
( ): NTSC model
[ ]: PAL model

Address	Adjustment Data		Function
	Initial Value	Memo Column	
6B	1B	Fixed	
6C		Fixed	
6D	A0	Fixed	
6E		Fixed	
6F		Fixed	
70	C0	Fixed	
71		Fixed	
72		Fixed	
73		Fixed	
74	55	Fixed	
75		Fixed	
76	25	Fixed	
77	34	Fixed	
78	3F	Fixed	
79	60	Fixed	
7A	1F	Fixed	
7B	40	Fixed	
7C		Fixed	
7D	41	Fixed	
7E	00	Fixed	
7F	24	Fixed	
80	07	Fixed	
81	0A	Fixed	
82	0C	Fixed	
83	12	Fixed	
84	17	Fixed	
85	22	Fixed	
86	25	Fixed	
87	28	Fixed	
88	2B	Fixed	
89	34	Fixed	
8A	3B	Fixed	
8B	02	Fixed	
8C	0C	Fixed	
8D	00	Fixed	
8E	80	Fixed	
8F	FF		Color Reproduction Adjustment
90	(F0)[EE]		Color Reproduction Adjustment
91		Fixed	
92		Fixed	
93	FE	Fixed	
94	3C	Fixed	
95	24	Fixed	
96	83	Fixed	
97	20	Fixed	
98	67	Fixed	
99	4A	Fixed	
9A	33	Fixed	
9B	5C	Fixed	
9C	5C	Fixed	
9D	5C	Fixed	
9E	3C	Fixed	
9F	0F	Fixed	
A0	10	Fixed	
A1	2C	Fixed	
A2	0A	Fixed	

Table. 5-4-1 (3)

Address	Adjustment Data		Function
	Initial Value	Memo Column	
A3	36	Fixed	
A4	C2	Fixed	
A5	46	Fixed	
A6	A0	Fixed	
A7	50	Fixed	
A8	1E	Fixed	
A9	0F	Fixed	
AA	E8	Fixed	
AB	90	Fixed	
AC	05	Fixed	
AD	D0	Fixed	
AE	01	Fixed	
AF	0A	Fixed	
B0	02	Fixed	
B1	04	Fixed	
B2	78	Fixed	
B3	3B	Fixed	
B4	A0	Fixed	
B5	00	Fixed	
B6	02	Fixed	
B7	F3	Fixed	
B8	A0	Fixed	
B9	64	Fixed	
BA	89	Fixed	
BB	17	Fixed	
BC	57	Fixed	
BD	67	Fixed	
BE	72	Fixed	
BF	93	Fixed	
C0	AA	Fixed	
C1	64	Fixed	
C2	44	Fixed	
C3	A2	Fixed	
C4	64	Fixed	
C5	90	Fixed	
C6	33	Fixed	
C7	18	Fixed	
C8	82	Fixed	
C9	00	Fixed	
CA	F2	Fixed	
CB	EE	Fixed	
CC	CE	Fixed	
CD	E8	Fixed	
CE	14	Fixed	
CF	2A	Fixed	
D0	E4	Fixed	
D1	40	Fixed	
D2	ED	Fixed	
D3	52	Fixed	
D4	10	Fixed	
D5	74	Fixed	
D6	20	Fixed	
D7	F9	Fixed	
D8	00	Fixed	
D9	00	Fixed	
DA	00	Fixed	

Table. 5-4-1 (4)

Address	Adjustment Data		Function
	Initial Value	Memo Column	
DB	00	Fixed	
DC	00	Fixed	
DD	00	Fixed	
DE	00	Fixed	
DF	10	Fixed	
E0	40	Fixed	
E1	60	Fixed	
E2	02	Fixed	
E3	00	Fixed	
E4	00	Fixed	
E5	10	Fixed	
E6	20	Fixed	
E7	0A	Fixed	
E8	22	Fixed	
E9		Fixed	
EA	00	Fixed	
EB	00	Fixed	
EC	00	Fixed	
ED	14	Fixed	
EE	10	Fixed	
EF	00	Fixed	
F0	00	Fixed	
F1	08	Fixed	
F2	0E	Fixed	
F3	00	Fixed	
F4	03	Fixed	
F5	14	Fixed	
F6	FF	Fixed	
F7	B0	Fixed	
F8	03	Fixed	
F9		Fixed	
FA		Fixed	
FB	F0	Fixed	
FC	26	Fixed	
FD	A3	Fixed	
FE	05	Fixed	
FF	10	Fixed	

Table. 5-4-1 (5)

4-2-8. Page D Address List

Note 1: The initial value of the adjustment data is the data immediately after execution of Page D data initialization, and Page D data modification. They are different from the value after all adjustments are executed.

Note 2: Some fixed values in blanks in the table are not shown because they are different in destination. When requiring input the data, copy the data built in the same model.

Address	Adjustment Data		Function
	Initial Value	Memo Column	
10	00	Fixed	Test Mode Control
11	00	Fixed	Test Mode Control
12	00	Fixed	Test Mode Control
13		Fixed	
14		Fixed	
15		Fixed	
16	E5	Fixed	
17	07	Fixed	
18	03	Fixed	
19	2B	Fixed	
1A		Fixed	
1B	C2	Fixed	
1C	2F	Fixed	
1D	71	Fixed	
1E	3F	Fixed	
1F	1D	Fixed	
20	07	Fixed	
21		Fixed	
22	00	Fixed	
23	10	Fixed	
24		Fixed	
25	00	Fixed	
26		Fixed	
27		Fixed	
28	70		Battery Down Adjustment
29	77		Battery Down Adjustment
2A	A0		Battery Down Adjustment
2B	AD		Battery Down Adjustment
2C	C0		Battery Down Adjustment
2D	0C	Fixed	
2E	03	Fixed	
2F	01	Fixed	
30	05	Fixed	
31	E7	Fixed	
32	05	Fixed	
33	73	Fixed	
34	24	Fixed	
35	CC	Fixed	
36	07	Fixed	
37	70		Battery Down Adjustment
38	FF	Fixed	
39	02	Fixed	
3A	02	Fixed	
3B	04	Fixed	
3C	0A	Fixed	
3D	32	Fixed	
3E	07	Fixed	
3F	00	Fixed	
40	C1	Fixed	

Table. 5-4-2 (1)

Address	Adjustment Data		Function
	Initial Value	Memo Column	
41	01	Fixed	
42	00	Fixed	
43	00	Fixed	
44	00	Fixed	
45	08	Fixed	
46	00	Fixed	
47	46	Fixed	
48	00	Fixed	
49	2A	Fixed	
4A	83	Fixed	
4B	D6	Fixed	
4C	00	Fixed	
4D	00	Fixed	
4E	00	Fixed	
4F	00	Fixed	
50	FF	Fixed	
51	C8	Fixed	
52	96	Fixed	
53	64	Fixed	
54	46	Fixed	
55	32	Fixed	
56	1E	Fixed	
57	14	Fixed	
58	10	Fixed	
59	10	Fixed	
5A	72	Fixed	
5B	77	Fixed	
5C	00	Fixed	
5D	89	Fixed	
5E	AC	Fixed	
5F	20	Fixed	
60	00	Fixed	
61	7B	Fixed	
62	7C	Fixed	
63	9D	Fixed	
64	CA	Fixed	
65	8D	Fixed	
66	80	Fixed	
67	81	Fixed	
68	81	Fixed	
69	00	Fixed	
6A	6E	Fixed	
6B	AE	Fixed	
6C	95	Fixed	
6D	52		
6E	73	Fixed	
6F	23	Fixed	
70	A8		EVF White Balance Adjustment
71	BD		EVF White Balance Adjustment

Table. 5-4-2 (2)

Address	Adjustment Data		Function
	Initial Value	Memo Column	
72	61		EVF Contrast Adjustment
73	93	Fixed	
74	93	Fixed	
75	BB		
76	6F		EVF VCO Adjustment
77	70		EVF Backlight Current Consumption Adjustment
78	70	Fixed	
79	77	Fixed	
7A	8A		EVF Bright Adjustment
7B	00	Fixed	
7C	00	Fixed	
7D	00	Fixed	
7E	88	Fixed	
7F	00	Fixed	
80	38	Fixed	
81	00	Fixed	
82		Fixed	
83		Fixed	
84	00	Fixed	
85	00	Fixed	
86		Fixed	
87		Fixed	
88	38	Fixed	
89	00	Fixed	
8A	25	Fixed	
8B	1A	Fixed	
8C	00	Fixed	
8D	00	Fixed	
8E	12	Fixed	
8F	00	Fixed	
90	40		Video Carrier Frequency Adjustment
91	20		Video Deviation Adjustment
92	20		Audio Deviation Adjustment
93	00	Fixed	
94	40		S-C Output Level Adjustment
95	40		S-Y Output Level Adjustment
96	40		Composite Output Y Level Adjustment
97	40		Composite Output Chroma Level Adjustment
98	4C		IC1900 27MHz Xtal fo Adjustment
99	3A	Fixed	
9A	34	Fixed	
9B	2F	Fixed	
9C	22	Fixed	
9D	0F	Fixed	
9E	58	Fixed	
9F	97	Fixed	
A0	62	Fixed	
A1	A6	Fixed	
A2	6E	Fixed	
A3	00	Fixed	
A4	01	Fixed	
A5		Fixed	
A6		Fixed	
A7		Fixed	

Table. 5-4-2 (3)

Address	Adjustment Data		Function
	Initial Value	Memo Column	
A8		Fixed	
A9	C0	Fixed	
AA	01	Fixed	
AB	03	Fixed	
AC		Fixed	
AD	01	Fixed	
AE	24	Fixed	
AF		Fixed	
B0	00	Fixed	
B1	04	Fixed	
B2	00	Fixed	
B3	00	Fixed	
B4	FF	Fixed	
B5	FF	Fixed	
B6	FF	Fixed	
B7	FF	Fixed	
B8	01	Fixed	
B9	00	Fixed	
BA	00	Fixed	
BB	00	Fixed	
BC	00	Fixed	
BD	00	Fixed	
BE	00	Fixed	
BF	00	Fixed	
C0	B6	Fixed	
C1	C5		LCD Bright Adjustment
C2	AE		LCD White Balance Adjustment
C3	BB		LCD White Balance Adjustment
C4	71		LCD Contrast Adjustment
C5	91		LCD VCO Adjustment
C6	97	Fixed	
C7	D1		
C8	C0		
C9	B0		
CA	B0		
CB	B0		
CC	94	Fixed	
CD	55		
CE	22	Fixed	
CF	22	Fixed	
D0	19		
D1	47		
D2	75	Fixed	
D3	A5	Fixed	
D4	D5	Fixed	
D5	FF		
D6	D6	Fixed	
D7	A6		
D8	75		
D9	42		
DA	12	Fixed	
DB	00	Fixed	
DC	2D		
DD	10		
DE	1E	Fixed	
DF	19	Fixed	

Table. 5-4-2 (4)

4-2-9. Page C Address List

Note 1: The initial value of the adjustment data is the data immediately after execution of Page C data initialization, and Page C data modification. They are different from the value after all adjustments are executed.

Note 2: Some fixed values in blanks in the table are not shown because they are different in destination. When requiring input the data, copy the data built in the same model.

Address	Adjustment Data		Function
	Initial Value	Memo Column	
00	DC	Fixed	
01	7F	Fixed	
02	AD	Fixed	
03	87	Fixed	
04	72	Fixed	
05	2F	Fixed	
06	A8	Fixed	
07	10	Fixed	
08		Fixed	
09	FF	Fixed	
0A	FF	Fixed	
0B	FF	Fixed	
0C	FF	Fixed	
0D	BF	Fixed	
0E	FF	Fixed	
0F	FF	Fixed	
10	B4	Fixed	
11	FF	Fixed	
12	FD	Fixed	
13		Fixed	
14	FE	Fixed	
15	50	Fixed	
16	00	Fixed	
17	FF	Fixed	
18	DF	Fixed	
19		Fixed	
1A	F2	Fixed	
1B	FF	Fixed	
1C	78	Fixed	
1D	1E	Fixed	
1E	1E	Fixed	
1F	FF	Fixed	
20	24	Fixed	
21	6E	Fixed	
22	7F	Fixed	
23	7F	Fixed	
24	30	Fixed	
25	5C	Fixed	
26	65	Fixed	
27	5F	Fixed	
28	28	Fixed	
29	70	Fixed	
2A	26	Fixed	
2B	4F	Fixed	
2C	FF	Fixed	
2D	10	Fixed	
2E	26	Fixed	
2F	03	Fixed	
30	00	Fixed	Emergency Memory Address

Table. 5-4-3 (1)

Address	Adjustment Data		Function
	Initial Value	Memo Column	
31	00	Fixed	Emergency Memory Address
32	00	Fixed	Emergency Memory Address
33	00	Fixed	Emergency Memory Address
34	00	Fixed	Emergency Memory Address
35	00	Fixed	Emergency Memory Address
36	00	Fixed	Emergency Memory Address
37	00	Fixed	Emergency Memory Address
38	00	Fixed	Emergency Memory Address
39	00	Fixed	Emergency Memory Address
3A	00	Fixed	Emergency Memory Address
3B	00	Fixed	Emergency Memory Address
3C	F0		PLL fo Adjustment
3D	F0		PLL fo Adjustment
3E	70		Recording Current Adjustment
3F	70		Recording Current Adjustment
40	C0		AEQ Adjustment
41	C0		AEQ Adjustment
42	90		AEQ Adjustment
43	90		AEQ Adjustment
44	90		AGC Center Level Adjustment
45	65	Fixed	
46	80		PLL Capture Range Adjustment
47	C0		CLK DELAY Adjustment
48	40	Fixed	
49	60	Fixed	
4A	33	Fixed	
4B	00	Fixed	
4C	00		Switching Position Adjustment
4D	00		Switching Position Adjustment
4E	00		Switching Position Adjustment
4F	00		Switching Position Adjustment
50	40	Fixed	
51	1E	Fixed	
52	FF	Fixed	
53	FF	Fixed	
54	00	Fixed	
55	00	Fixed	
56	08	Fixed	
57	04	Fixed	
58	16	Fixed	
59	00		CSerr Adjustment
5A	00		AEQ Adjustment
5B	02	Fixed	
5C	00	Fixed	
5D	00	Fixed	
5E	02	Fixed	
5F	00	Fixed	
60	00	Fixed	
61	00	Fixed	

Table. 5-4-3 (2)

Address	Adjustment Data		Function
	Initial Value	Memo Column	
62	03	Fixed	
63	00	Fixed	
64	32	Fixed	
65	20	Fixed	
66	00	Fixed	
67	08	Fixed	
68	00	Fixed	
69	00	Fixed	
6A	00	Fixed	
6B	03	Fixed	
6C	03	Fixed	
6D	00	Fixed	
6E	00	Fixed	
6F	00		T Reel FG Duty Adjustment

Table. 5-4-3 (3)

SECTION 6
REPAIR PARTS LIST

6-1. EXPLODED VIEWS

Note:

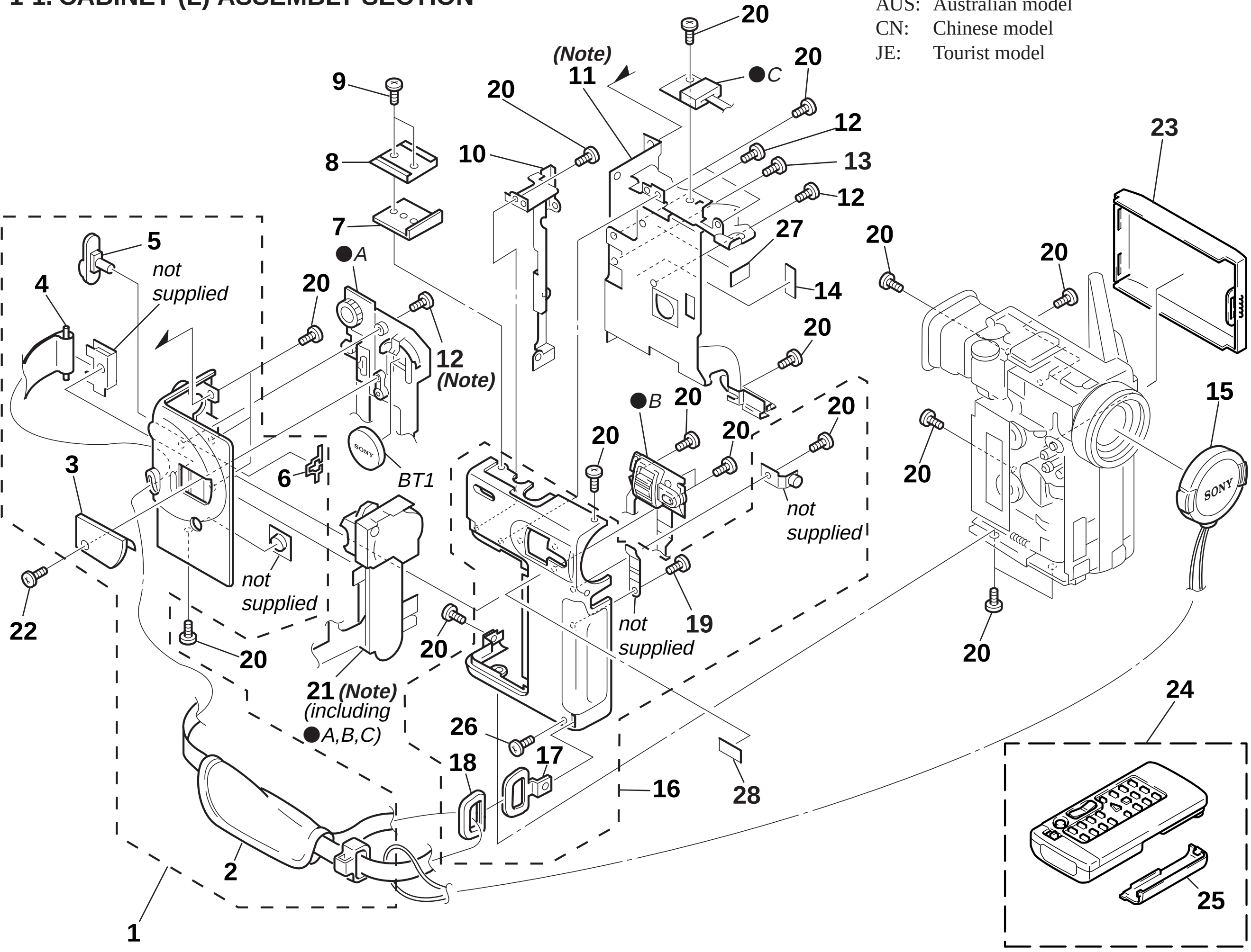
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (#mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

HK: Hong Kong model
AUS: Australian model
CN: Chinese model
JE: Tourist model

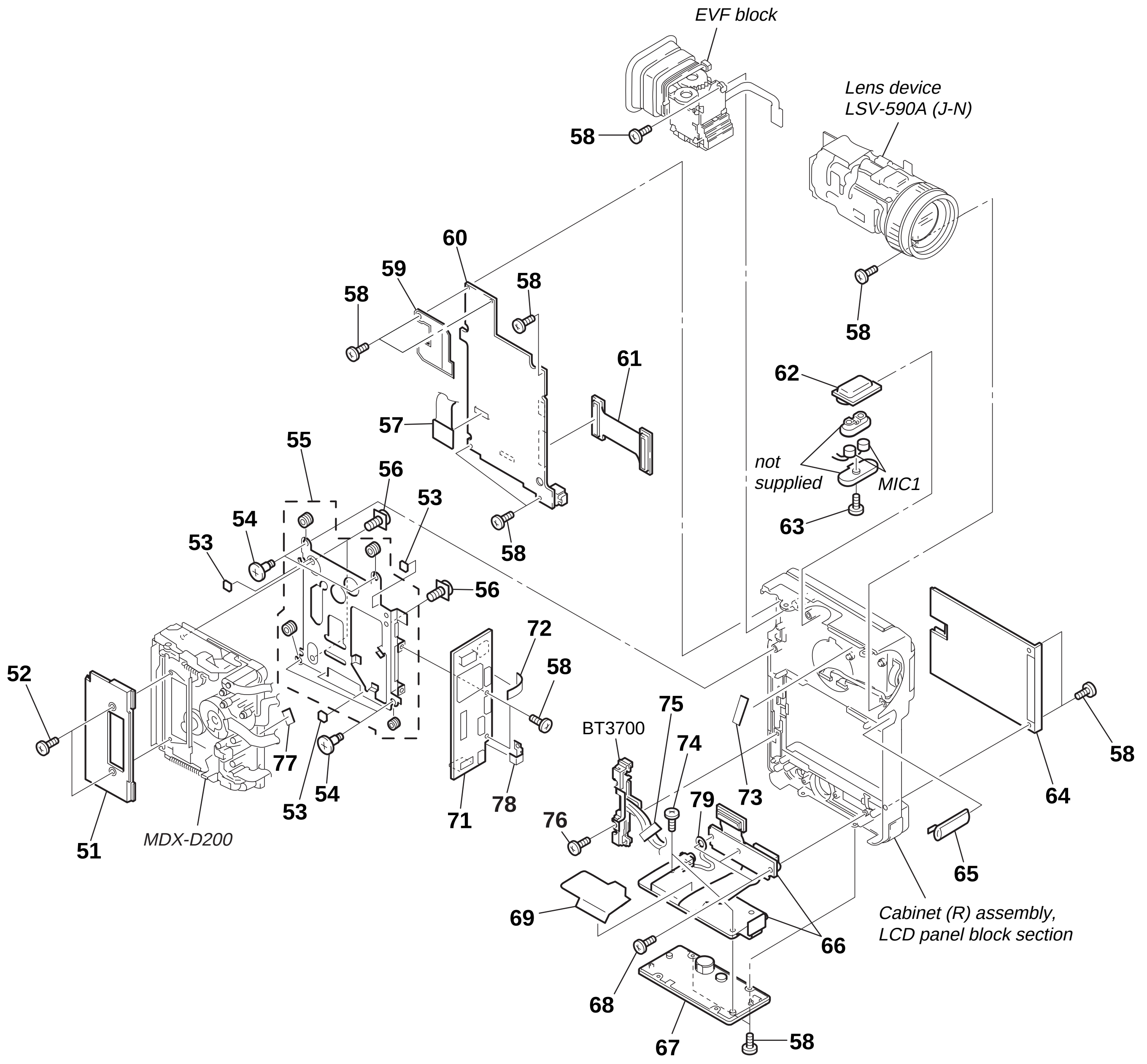
6-1-1. CABINET (L) ASSEMBLY SECTION



Note: *The combinations of the parts Ref. No. 11, 12 and 21 are different in the suffix number. So when replacing these parts, be sure to refer to page 2-3 in the section 2. DISASSEMBLY.*

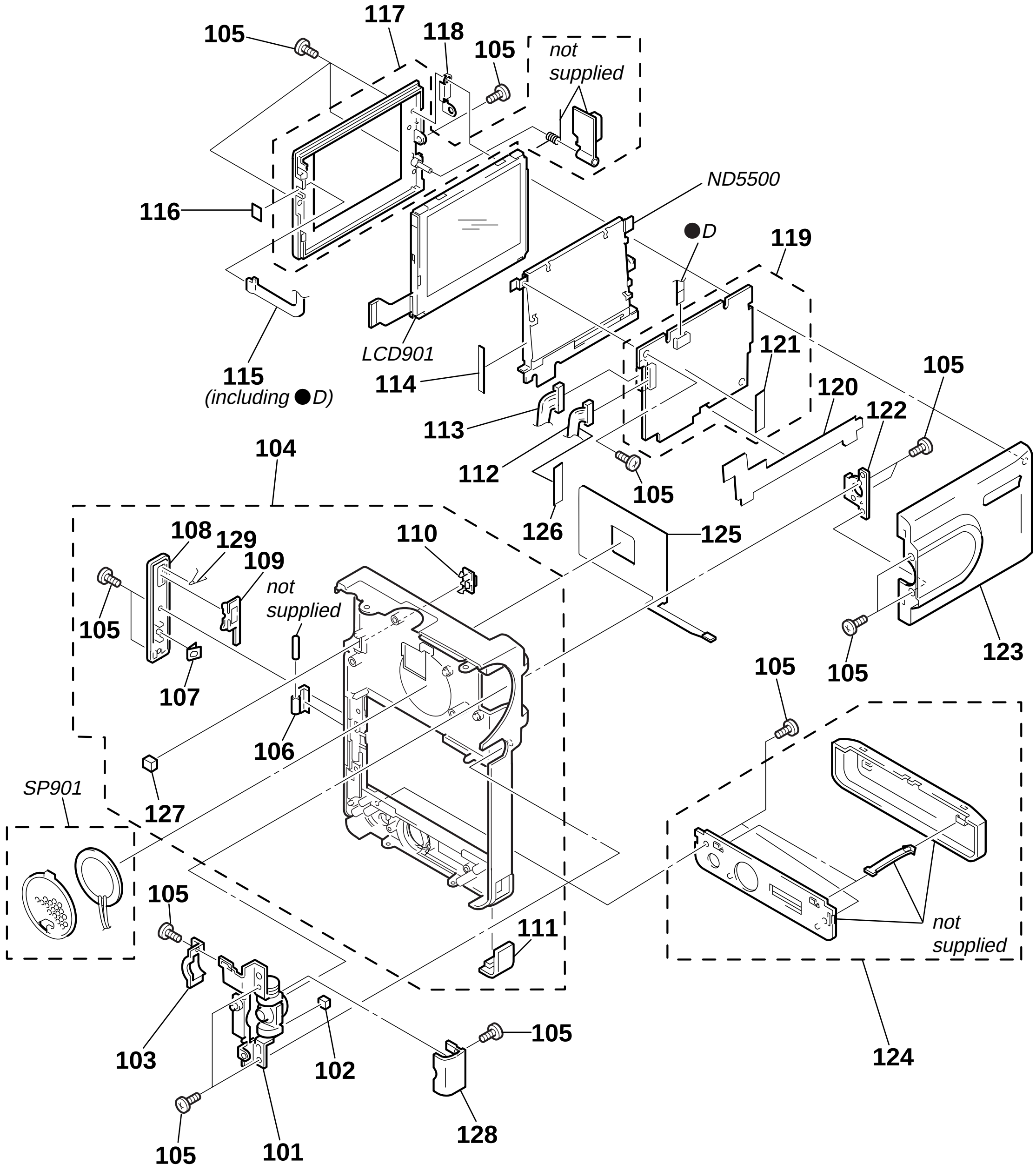
Ref. No.	Part No.	Description	Remarks
1	X-3947-933-1	CABINET ASSY, GLIP (PC10E:AEP,UK)	
1	X-3948-091-1	CABINET ASSY, GLIP (PC10/PC10E:EXCEPT AEP,UK)	
2	3-978-789-01	BELT, GRIP	
* 3	3-978-750-11	LID, LITHIUM BATTERY CASE	
4	3-978-790-01	SHAFT, BELT	
5	3-978-791-01	KNOB, G LOCK	
6	3-978-765-01	SLIDER, G LOCK	
7	3-978-745-01	PLATE (2), ACCESSORY	
8	3-724-511-41	SHOE, ACCESSORY	
9	7-621-555-29	SCREW +K 2X4	
* 10	3-978-749-01	FRAME, G LOCK	
11	X-3947-792-2	ARM ASSY, GRIP	
12	3-713-791-01	SCREW (M1.7X4), TAPPING, P2	
13	3-968-729-21	SCREW (M2), LOCK ACE, P2	
14	3-973-600-01	CUSHION, INDICATION (LCD)	
15	X-3947-885-1	CAP ASSY, LENS	
16	X-3947-932-1	CABINET (L) ASSY	
* 17	3-978-784-01	BRACKET, STRAP	
* 18	3-978-785-01	CAP, BRACKET	
19	3-719-695-13	SCREW (M1.7X2.5), SPECIAL HEAD	
20	3-973-497-41	SCREW (M1.7), 0-NO. +P 2	
21	1-475-331-21	SWITCH BLOCK, CONTROL(FK-4850)	
22	4-935-904-01	SCREW (2X5)	
23	3-973-595-01	COVER, BATTERY TERMINAL	
24	1-475-141-21	COMMANDER, REMOTE (RMT-808E) (PC10/PC10E:EXCEPT AEP,UK)	
24	1-475-141-31	COMMANDER, REMOTE (RMT-809E) (PC10E:AEP,UK)	
25	3-742-854-21	LID, BATTERY(FOR REMOTE COMMANDER)	
26	3-724-455-41	SCREW (M2)	
* 27	3-979-973-01	SPACER, CASSETTE COMPARTMENT	
* 28	3-704-367-31	LABEL (FAROUDJA)(PC10: US)	
* BT1	1-528-724-31	BATTERY, V/L RICHARGEABL	

6-1-2. MAIN BOARDS SECTION


EVF block
Lens device
LSV-590A (J-N)
58
60
59
58
58
58
61
62
57
55
56
53
not
supplied
MIC1
54
63
53
58
56
72
52
58
75
BT3700
74
58
77
54
53
71
78
79
73
64
76
51
MDX-D200
65
69
Cabinet (R) assembly,
LCD panel block section
66
68
67
58

Ref. No.	Part No.	Description	Remarks
51	X-3947-927-1	COVER ASSY	
52	3-719-695-21	SCREW (M1.7X3.5), SPECIAL HEAD	
53	3-975-921-01	SHEET, VIBRATION PROOF	
54	3-352-483-01	SCREW (M2), STEP	
55	X-3947-790-1	FRAME ASSY, MD	
56	X-3945-526-1	SCREW ASSY, STEP	
57	1-666-884-11	FP-605 FLEXIBLE BOARD	
58	3-973-497-41	SCREW (M1.7), 0-NO. +P 2	
* 59	3-974-257-04	PLATE, VC SHIELD	
60	A-7067-063-A	VC-199 BOARD, COMPLETE (PC10)	
60	A-7067-108-A	VC-199P BOARD, COMPLETE (PC10E:E,HK,AUS,CN,JE)	
60	A-7067-122-A	VC-199P BOARD, COMPLETE(PC10E:AEP,UK)	
61	A-7073-343-A	CC-100 BOARD, COMPLETE	
62	X-3947-791-1	CASE (UPPER) ASSY, MICROPHONE	
63	3-948-339-01	SCREW, TAPPING	
64	X-3948-000-1	PLATE ASSY, BATTERY (PC10:EXCEPT US,Canadian/PC10E)	
64	X-3948-361-1	PLATE ASSY, BATTERY (PC10:US,Canadian)	
65	3-978-748-01	WINDOW (I), REMOTE CONTROL	
66	A-7073-347-A	DD-103 BOARD, COMPLETE (PC10E)	
66	A-7073-399-A	DD-103 BOARD, COMPLETE (PC10)	
67	X-3946-558-1	CABINET (BOTTOM) ASSY	
68	3-713-786-31	SCREW (M2X6)	
* 69	3-978-868-01	SHEET (2), DD BLIND	
71	A-7067-064-A	MR-39 BOARD, COMPLETE	
* 72	3-987-260-01	SHEET, DRUM FLEXIBLE	
* 73	3-979-996-01	CUSHION (R), SENSOR	
74	3-318-382-21	SCREW (1.7X3), TAPPING	
75	3-831-441-11	SPACER	
76	3-975-201-01	SCREW (M1.7X3)	
77	3-974-303-01	SPACER, DRUM	
78	3-987-721-01	SPRING, MR GROUND (PC10)	
79	1-783-194-11	WIRE	
BT3700	1-694-154-21	TERMINAL BOARD, BATTERY	
MIC1	1-542-332-11	MICROPHONE UNIT	

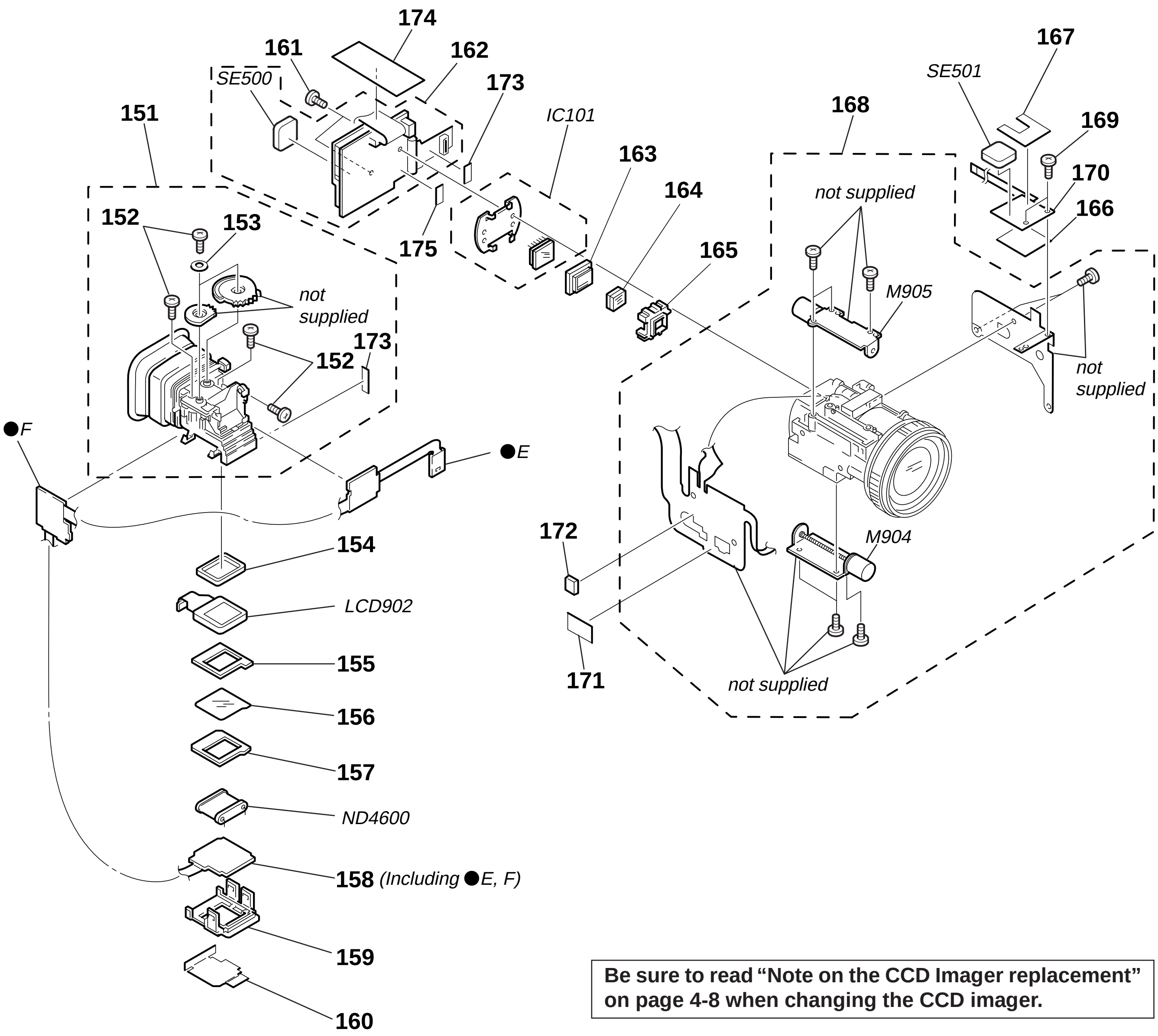
6-1-3. CABINET (R) ASSEMBLY, LCD PANEL SECTION


105
117
118
105
not supplied
116
ND5500
●D
119
LCD901
121
105
115
(including ●D)
114
120
122
113
104
112
105
108
129
110
126
125
109
not supplied
105
123
105
105
107
106
SP901
127
105
111
not supplied
105
103
102
124
128
105
101

Ref. No.	Part No.	Description	Remarks
101	X-3947-787-1	HINGE BLOCK ASSY, ROTARY	
102	1-452-777-21	MAGNET	
103	3-972-372-31	PLATE (INNER), ORNAMENTAL	
104	X-3947-936-1	CABINET (R) ASSY	(PC10/PC10E:EXCEPT AEP,UK)
104	X-3947-975-1	CABINET (R) ASSY(PC10E:AEP,UK)	
105	3-973-497-91	SCREW (M1.7), 0-NO. +P 2	
106	3-972-351-01	CLAW, BATTERY LOCK	
107	3-972-358-01	SPRING, BATTERY LOCK	
108	3-987-450-11	COVER (3), BATTERY LOCK	
109	3-978-451-01	LOCK (3), BATTERY	
110	3-978-756-01	GUIDE (2), LCD LOCK	
111	3-972-360-01	COVER, DV TERMINAL	
112	1-957-909-11	HARNESS (VQ-51)	
113	1-957-908-11	HARNESS (VP-71)	
* 114	3-974-150-01	SHEET, CONNECTOR INSULATING	
115	1-662-741-11	FP-484 FLEXIBLE BOARD	
116	3-973-945-01	SHEET, SENSOR ELECTROSTATIC	
117	X-3947-788-1	CASE (L) ASSY, LCD	
* 118	3-987-450-01	PLATE (3), PD GROUND	
119	A-7093-430-A	PD-97 BOARD, COMPLETE (SERVICE ASSY)	
* 120	3-979-685-01	SHEET (2), PD INSULATING	
* 121	3-979-994-01	SHEET, INVERTOR	
122	3-972-410-01	BRACKET, HL	
123	X-3947-935-1	CASE (R) ASSY, LCD	(PC10/PC10E:EXCEPT AEP,UK)
123	X-3947-974-1	CASE (R) ASSY, LCD (PC10E:AEP,UK)	
124	X-3947-934-1	DOOR ASSY, JACK (PC10E)	
124	X-3947-937-1	DOOR ASSY, JACK (PC10)	
125	1-475-374-21	SWITCH BLOCK, CONTROL(ME-4850)	
* 126	3-987-263-01	SHEET, PD HARNESS	
* 127	3-979-978-01	SPACER, LOCK GUIDE	
128	3-972-371-31	PLATE (OUTER), ORNAMENTAL	
129	3-987-566-01	SPRING, RETURN	
LCD901	8-753-022-98	DCX501AKC-J	
⚠ND5500	1-517-586-21	TUBE, FLUORESCENT, COLD CATHODE	(BACKLIGHT)
SP901	1-505-417-11	SPEAKER (2.8 CM)	

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1-4. EVF BLOCK, ZOOM LENS SECTION

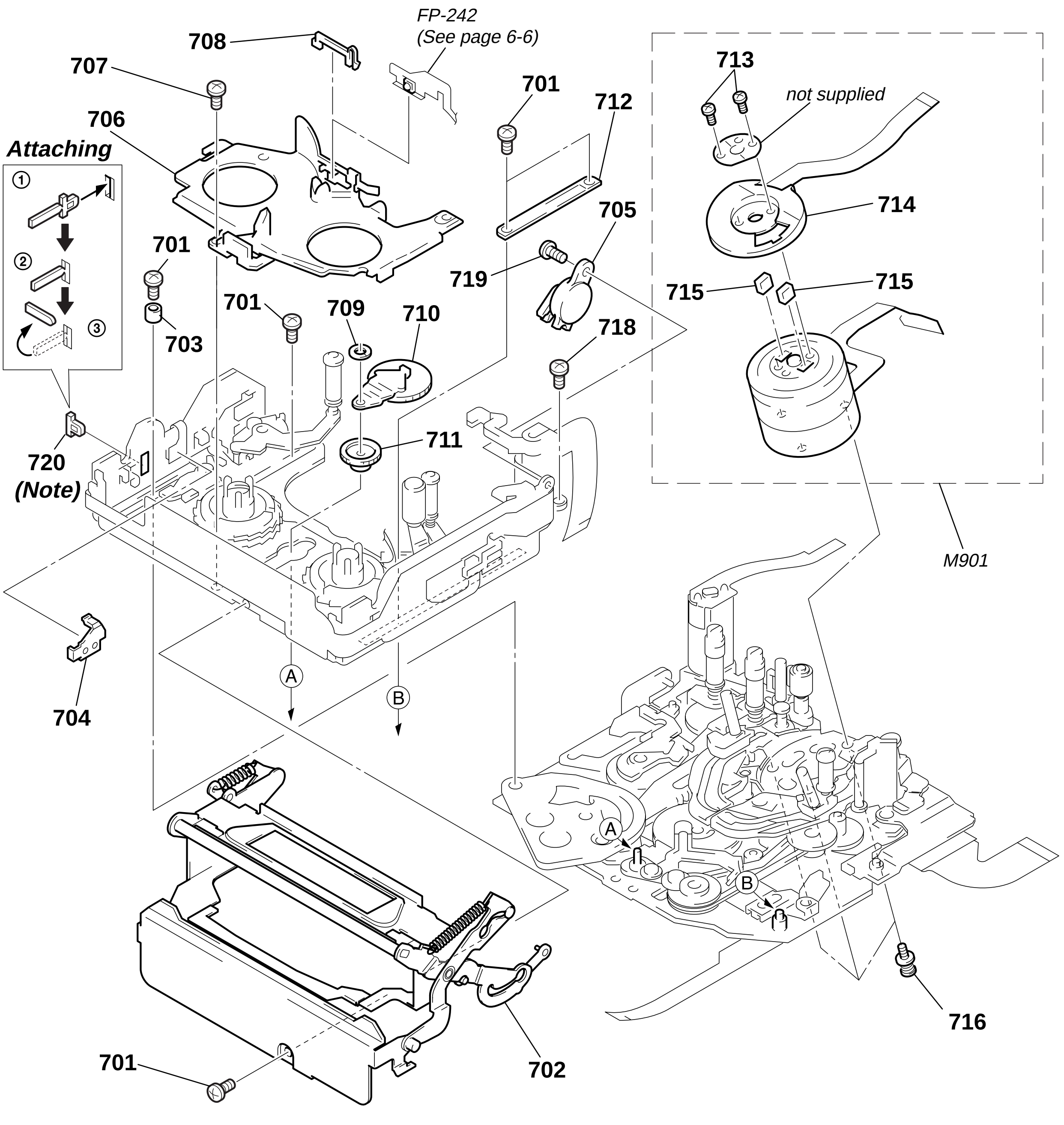

174
161
162
173
SE500
151
IC101
163
164
165
168
167
SE501
169
170
166
not supplied
M905
152
153
not supplied
173
152
not supplied
●F
●E
154
172
M904
LCD902
155
171
not supplied
156
157
ND4600
158 (Including ●E, F)
159
160

Be sure to read "Note on the CCD Imager replacement" on page 4-8 when changing the CCD imager.

Ref. No.	Part No.	Description	Remarks
151	X-3946-560-1	EVF SUB ASSY	
152	3-318-382-01	SCREW (1.7X3), TAPPING	
153	7-688-001-01	W 2, MIDDLE	
* 154	3-960-302-11	CUSHION (1), LCD	
* 155	3-972-414-01	CUSHION (2), LCD	
156	3-972-400-01	ILLUMINATOR	
* 157	3-972-412-01	CUSHION (3), LCD	
158	A-7073-344-A	VF-117 BOARD, COMPLETE (PC10)	
158	A-7073-398-A	VF-117P BOARD, COMPLETE (PC10E)	
* 159	3-972-413-01	BOARD, BL PC	
* 160	3-973-980-02	PLATE, VF SHIELD	
161	3-947-268-11	TITE (2), +B TAPPING (P)	
162	A-7073-341-A	CD-175 BOARD, COMPLETE	
163	3-957-980-11	RUBBER (C), SEAL	
164	1-547-923-21	FILTER BLOCK, OPTICAL	
165	3-969-297-01	ADAPTOR (CH), CCD FITTING	
165	3-969-297-11	ADAPTOR (CH), CCD FITTING	
* 166	3-979-998-01	CUSHION (LOWER), SENSOR	
* 167	3-979-997-01	CUSHION (HORIZONTAL), SENSOR	
168	8-848-721-01	DEVICE, LENS LSV-590A(J-N)	
169	3-973-497-01	SCREW (M1.7), 0-NO. +P 2	
170	1-667-118-11	FP-615 FLEXIBLE BOARD	
171	3-831-441-99	SPACER (A)	
* 172	3-979-716-01	CUSHION (2), LENS	
* 173	3-979-982-01	CUSHION, CD CONNECTOR	
* 174	3-987-046-01	SHEET, MN	
* 175	3-987-409-01	CUSHION, CD FLEXIBLE	
IC101	A-7030-755-A	CCD BLOCK ASSY(080)SERVICE(CCD IMAGER) (PC10)	
IC101	A-7030-765-A	CCD BLOCK ASSY(081)SERVICE(CCD IMAGER) (PC10E)	
LCD902	8-753-016-10	LCX005BK-J	
M904	1-763-008-11	MOTOR ASSY, FOCUS	
M905	1-763-009-11	MOTOR ASSY, ZOOM	
⚠ND4600	1-517-414-41	FLUORESCENT TUBE (0.55 INCH)(BACKLIGHT)	
SE500	1-801-731-71	SENSOR, ANGULAR VELOCITY (YAW)	
SE501	1-801-731-81	SENSOR, ANGULAR VELOCITY (PITCH)	

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1-5. CASSETTE COMPARTMENT BLOCK SECTION


FP-242
(See page 6-6)
708
707
706
Attaching
①
②
③
701
703
701
709
710
711
701
712
705
719
718
713
not supplied
714
715
715
720
(Note)
M901
A
B
704
A
B
716
701
702

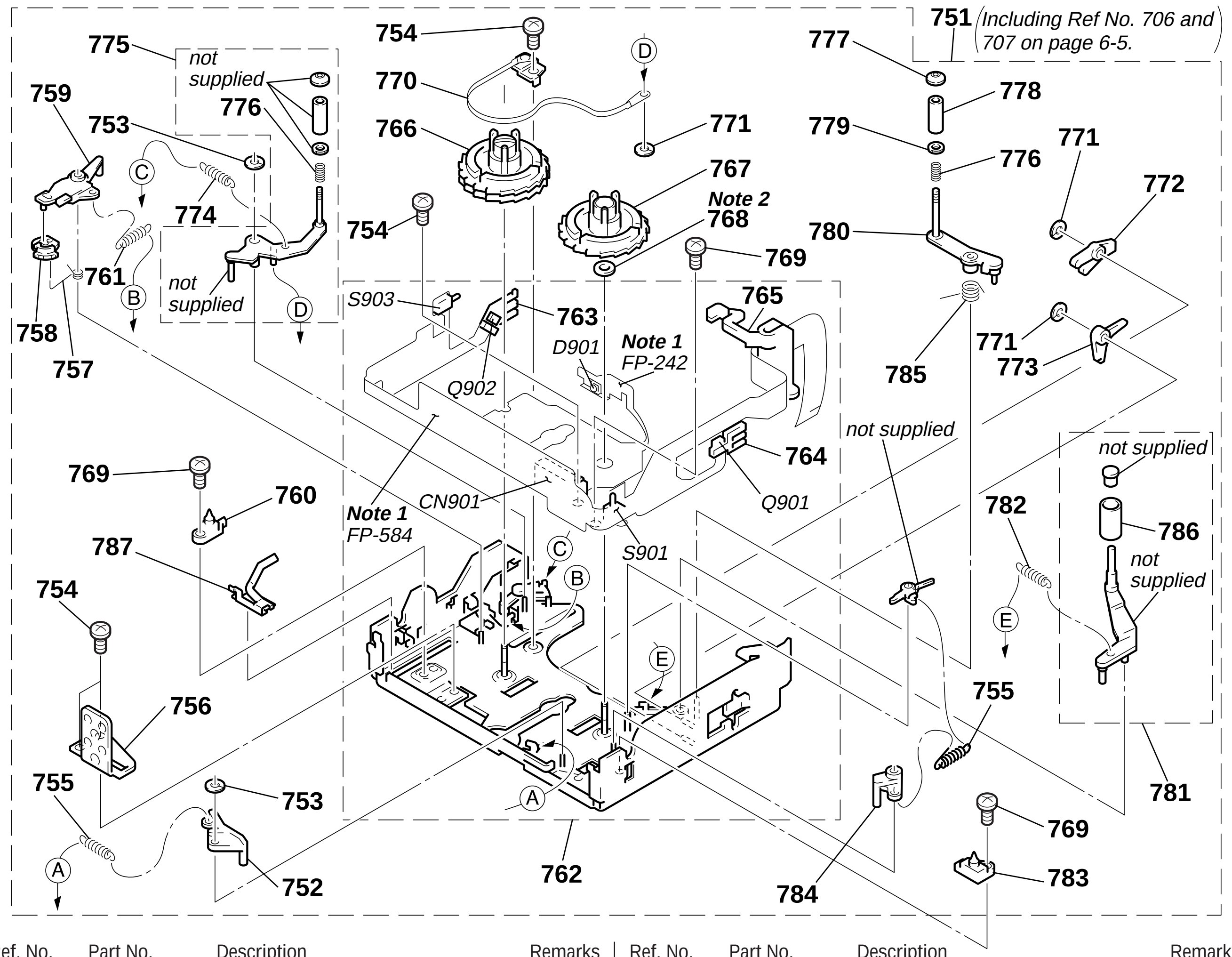
Note: *Once remove No. 720 CC fastener, don't use it again.*
Be sure to replace it with new one.
(Attaching procedure is as shown above figure.)

Ref. No.	Part No.	Description	Remarks
701	3-728-103-11	SCREW (M1.4X1.6)	
702	X-3947-480-1	CASSETTE COMPARTMENT ASSY	
703	3-748-703-01	COLLAR	
* 704	3-976-449-02	COVER, CC SWITCH	
705	3-976-446-01	DAMPER	
706	X-3748-613-3	BASE ASSY, LED	
707	3-704-197-21	SCREW (M1.4X2.5), LOCKING	
708	3-748-683-01	HOLDER, LED	
709	3-315-414-31	WASHER	
710	X-3748-609-2	GOOSENECK ASSY	
711	3-748-736-01	GEAR, RELAY	
712	3-748-702-02	SLIDER, CAM	
713	3-703-816-74	SCREW (M1.4X4.5), SPECIAL HEAD	
714	X-3944-897-2	MOTOR FPC ASSY	
715	1-770-363-11	ELASTIC CONNECTOR	
716	A-7026-009-B	SCREW ASSY, DRUM FITTING	
718	3-703-816-42	SCREW (M1.4X2.5), SPECIAL HEAD	
719	3-962-346-01	SCREW (M1.6)	
* 720	3-979-009-03	FASTENER, CC (NOTE)	
M901	A-7044-007-A	DRUM ASSY (DEH-07A-R)	

6-1-6. LS CHASSIS BLOCK SECTION

Note 1: About FP-242 and FP-584
The FP-242 and FP-584 flexible boards are installed to a chassis with a hot press, which are included in the Ref. No. 762 LS chassis (S) block section, They are not supplied separately because the high precision for installation is needed.

Note 2: Selecting the T washer
Select proper parts for the Ref. No. 768 T washer according to “Height adjustment for T reel table assembly” on page 23 in the “DV MECHANICAL ADJUSTMENT MANUAL Ⅰ “ (9-973-815-11).


775
not supplied
759
753
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C
774
not supplied
761
B
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770
766
D
771
767
Note 2
768
754
769
S903
763
D901
Note 1
FP-242
Q902
765
751
Including Ref No. 706 and 707 on page 6-5.
777
778
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776
771
772
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785
771
773
not supplied
764
Q901
769
760
Note 1
FP-584
CN901
C
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S901
787
754
782
not supplied
786
not supplied
E
E
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A
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762
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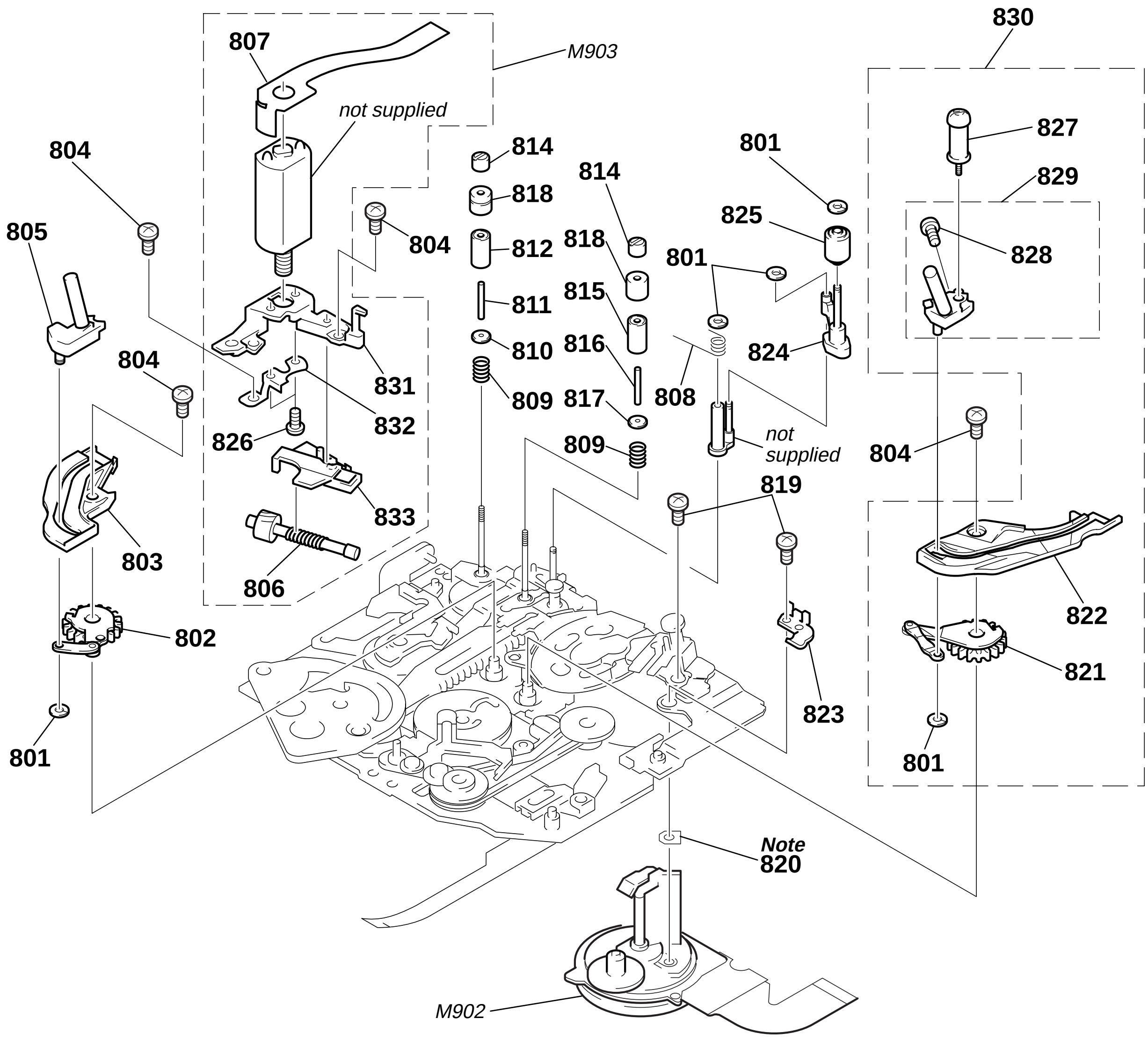
Ref. No.	Part No.	Description	Remarks
751	A-7026-030-A	CHASSIS(D2)BLOCK ASSY,LS (FOR SERVICE)	
752	3-748-775-03	BRAKE, RVS	
753	3-315-414-31	WASHER	
754	3-728-103-11	SCREW (M1.4X1.6)	
755	3-748-776-01	SPRING, TENSION	
756	3-748-681-01	PLATE, LS CAM	
757	3-748-774-01	SPRING, TORSION	
758	3-748-773-04	HARD, S	
759	3-748-815-02	ARM, S BRAKE	
760	3-748-677-01	POSITIONING, S	
761	3-968-656-01	SPRING, TENSION	
762	A-7026-025-A	CHASSIS (D2) ASSY, LS	
763	3-976-644-01	SENSOR HOLDER S	
764	3-976-458-01	SENSOR HOLDER T	
765	3-976-824-01	FPC HOLDER	
766	X-3748-614-2	TABLE ASSY, REEL, S	
767	X-3748-615-2	TABLE ASSY, REEL, T	
768	3-748-682-01	WASHER, T (t:0.25, GRN)	**Note 2**
768	3-748-682-11	WASHER, T (t:0.1, YEL)	**Note 2**
768	3-748-682-21	WASHER, T (t:0.35, BLK)	**Note 2**
769	3-703-816-42	SCREW (M1.4X2.5), SPECIAL HEAD	
770	X-3748-618-2	BAND ASSY, TENSION REGULATOR	
771	3-315-384-11	WASHER, STOPPER	

Ref. No.	Part No.	Description	Remarks
772	3-748-680-01	FOLLOWER, SLIDER	
773	3-748-679-01	LEVER, LOCK	
774	3-748-822-02	SPRING, EXTENSION	
775	A-7026-020-B	ARM BLOCK ASSY,	
776	3-940-891-01	SPRING, COMPRESSION	
777	3-966-194-01	FLANGE, TG7 UPPER	
778	3-748-777-02	TG7	
779	3-964-614-01	FLANGE, TG7 LOWER	
780	X-3748-616-2	ARM ASSY, TG7	
781	X-3748-630-2	ARM ASSY, PINCH	
782	3-748-603-01	SPRING, TENSION	
783	3-748-678-01	POSITIONING, T	
784	3-748-778-02	BRAKE, T HARD	
785	3-748-675-01	SPRING, TORSION	
786	X-3946-959-1	ROLLER ASSY (DIA. 5.6), PINCH	
787	3-973-067-01	SPRING,CASSETTE COMPARTMENT UP	
CN901	1-770-312-11	CONNECTOR 4P	
D901	8-719-050-98	DIODE LN57.SO	
Q901	8-729-028-71	TRANSISTOR PN166.SO (TAPE TOP)	
Q902	8-729-028-71	TRANSISTOR PN166.SO (TAPE TOP)	
S901	1-762-351-11	SWITCH, PUSH (1 KEY) (REC PROOF)	
S903	1-572-467-21	SWITCH, PUSH (1 KEY) (C.C. DOWN)	

6-1-7. MECHANISM CHASSIS BLOCK SECTION-1

Note: Be sure to remember the installed position (one of two position), direction and thickness of the Ref. No. 820 (head spacer) when the M902 (capstan motor)is removed. Refer to “3-9. Capstan motor” on page 15 in the DV MECHANICAL ADJUSTMENT MANUAL Ⅰ (9-973-815-11) for details. The thickness of head spacer is normally 100 µm. If it is lost, two 50 µm head spacers will be needed. Be careful not to loose it.


830
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M903
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832
not supplied
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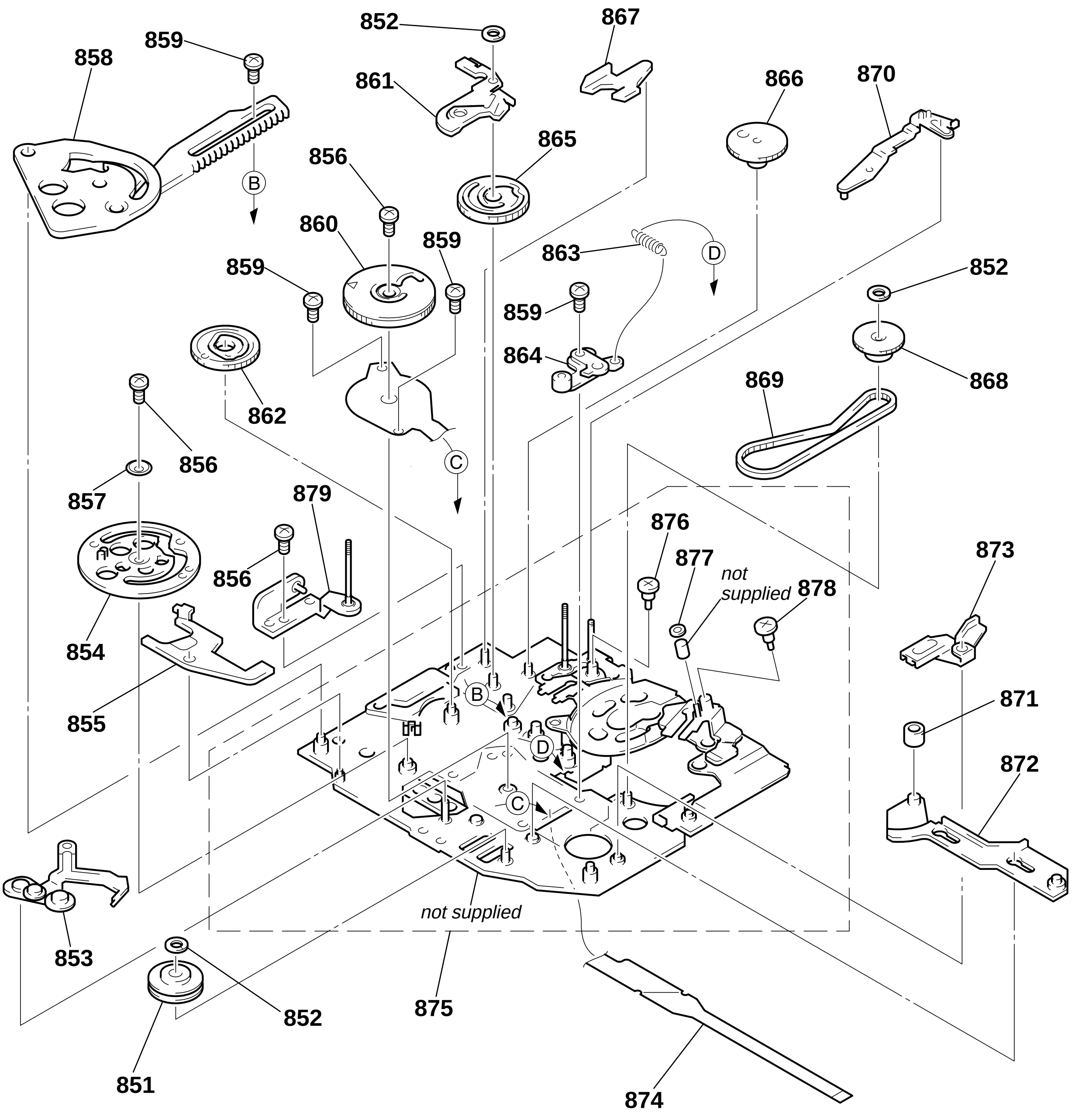
801
Note
820
M902

Ref. No.	Part No.	Description	Remarks
801	3-315-414-31	WASHER	
802	X-3748-623-1	GL (S) ASSY	
803	3-748-600-02	RAIL (S)	
804	3-703-816-71	SCREW (M1.4X3.0), SPECIAL HEAD	
805	X-3748-622-2	COASTER (S) ASSY	
806	X-3748-633-1	SHAFT ASSY, WORM	
807	1-666-102-11	FP-586 FLEXIBLE BOARD	
808	3-748-742-02	SPRING, TORSION	
809	3-966-107-01	SPRING, COMPRESSION	
810	3-966-105-01	FLANGE, TG1 LOWER	
811	3-966-100-01	SLEEVE, TG13	
812	3-966-099-01	ROLLER, TG13	
814	3-966-101-01	NUT, TG13	
815	3-966-099-11	ROLLER, TG13	
816	3-966-100-11	SLEEVE, TG13	
817	3-966-106-01	FLANGE, TG3 LOWER	
818	3-973-948-01	FLANGE (2), TG13 UPPER	
819	3-972-669-01	SCREW (M1.4X1.6)	
820	3-727-847-16	HEAD SPACER (FOR CORRECTION) t=50um	Note
821	X-3748-624-1	GL (T) ASSY	
822	3-748-601-02	RAIL (T)	
823	3-964-430-01	SPRING, LS RETAINER	
824	X-3748-628-2	SLIDE ASSY, HC	
825	A-7026-006-A	ROLLER ASSY, HC	
826	3-947-504-01	SCREW (M1.2X2), SPECIAL, 0	
827	X-3748-626-3	TG5 ASSY	
828	3-965-211-01	SCREW (M1)	
829	X-3948-052-1	COASTER (T) ASSY (-M)	
830	A-7026-002-A	GL (T) BLOCK ASSY	
* 831	3-976-463-01	HOLDER (DIA. 8), MOTOR	
* 832	3-964-429-01	COVER, WHEEL	
* 833	3-976-464-01	HOLDER (DIA. 8), SHAFT	
M902	8-835-524-01	MOTOR, DC SCD-0101A (CAPSTAN)	
M903	A-7010-673-A	ASSY, LM MOTOR (LOADING)	

6-1-8. MECHANISM CHASSIS BLOCK SECTION-2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865
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868
869
862
856
C
857
879
876
877
not supplied
878
873
856
854
B
D
871
855
C
872
not supplied
853
852
875
851
874

Ref. No.	Part No.	Description	Remarks
851	X-3945-640-1	PULLEY ASSY, RELAY	
852	3-315-414-31	WASHER	
853	X-3748-600-1	ARM ASSY, COMPULSION	
854	X-3748-605-1	CAM (S) ASSY	
855	3-976-452-01	LEVER, EJECT	
856	3-703-816-42	SCREW (M1.4X2.5), SPECIAL HEAD	
857	3-976-460-01	SPACER, CAM (S)	
858	X-3748-602-2	ARM ASSY, LS	
859	3-728-103-11	SCREW (M1.4X1.6)	
860	X-3748-604-1	CAM ASSY, MODE	
861	3-748-739-02	RETAINER, GEAR	
862	3-748-740-03	GEAR, NO.3	
863	3-748-602-02	SPRING, TENSION	
864	X-3748-627-1	ARM ASSY, ADJUSTMENT	
865	3-748-738-02	GEAR, NO.2	
866	3-748-741-03	GEAR, NO.1	
867	3-748-731-02	ARM, POSITION	
868	X-3945-639-1	PULLEY ASSY, CONVERSION	
869	3-748-734-01	BELT, RELAY	
870	3-974-501-01	ARM (2), RVS STOPPER	
871	3-728-109-01	ROLLER, LS	
872	3-748-647-01	SLIDER, MODE	
873	3-748-733-01	ARM, PINCH RELEASE	
874	1-666-101-11	FP-585 FLEXIBLE BOARD	
875	A-7026-023-B	CHASSIS SUB BLOCK ASSY	
876	3-748-620-02	SCREW, ADJUSTMENT	
877	4-943-288-01	WASHER	
878	3-748-605-02	SCREW, ADJUSTMENT	
879	X-3748-606-4	BASE ASSY, TG1	

6-2. ELECTRICAL PARTS LIST

Note:

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CN: Chinese
JE: Tourist
HK: Hong Kong
AU: Australian

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: μF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: μH
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD..., μPD...

Ref. No.	Part No.	Description			Remarks
	A-7073-343-A	CC-100 BOARD, COMPLETE *********************** (Ref.No.: 20,000 series)			
		< CONNECTOR >			
CN6250	1-778-599-31	CONNECTOR, BOARD TO BOARD 80P			
CN6251	1-778-594-31	CONNECTOR, BOARD TO BOARD 80P			
	A-7073-341-A	CD-175 BOARD, COMPLETE *********************** (IC101 is not included to the mounted board) (Ref.No.: 1,000 series)			
		< CAPACITOR >			
C102	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C103	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C104	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C105	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
C106	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C108	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C109	1-113-990-11	TANTAL. CHIP	15uF	20%	16V
C500	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C501	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C502	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C503	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C504	1-104-908-11	TANTAL. CHIP	47uF	20%	4V
C505	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C506	1-104-908-11	TANTAL. CHIP	47uF	20%	4V
C507	1-104-908-11	TANTAL. CHIP	47uF	20%	4V
C508	1-104-908-11	TANTAL. CHIP	47uF	20%	4V
C509	1-104-908-11	TANTAL. CHIP	47uF	20%	4V
		< CONNECTOR >			
CN100	1-778-597-21	CONNECTOR, BOARD TO BOARD 50P			
CN101	1-750-360-21	CONNECTOR, FFC/FPC (ZIF) 24P			
CN102	1-779-327-11	CONNECTOR, FFC/FPC 6P			
		< FERRITE BEAD >			
FB100	1-543-955-11	INDUCTOR	0UH		
FB101	1-543-955-11	INDUCTOR	0UH		
		< IC >			
IC100	8-752-372-14	IC CXD1267AN-T4			
IC101	A-7030-755-A	CCD BLOCK ASSY (080) SERVICE (CCD IMAGER)(PC10)			
IC101	A-7030-765-A	CCD BLOCK ASSY (081) SERVICE (CCD IMAGER)(PC10E)			
		< TRANSISTOR >			
Q100	8-729-117-73	TRANSISTOR 2SC4178-F13F14-T1			
		< RESISTOR >			
R101	1-216-857-11	METAL CHIP	1M	5%	1/16W
R103	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R104	1-218-990-11	SHORT	0		
R500	1-216-801-11	METAL CHIP	22	5%	1/16W
R501	1-216-833-11	METAL CHIP	10K	5%	1/16W
R502	1-216-833-11	METAL CHIP	10K	5%	1/16W
		< SENSOR >			
SE500	1-801-731-71	SENSOR, ANGULAR VELOCITY (YAW)			
	A-7073-399-A	DD-103 BOARD, COMPLETE (PC10) ******************************			
	A-7073-347-A	DD-103 BOARD, COMPLETE (PC10E) ******************************* (Ref.No.: 30,000 series)			
		< CAPACITOR >			
C3700	1-113-990-11	TANTAL. CHIP	15uF	20%	16V
C3701	1-113-994-11	TANTAL. CHIP	6.8uF	20%	16V
C3702	1-113-994-11	TANTAL. CHIP	6.8uF	20%	16V
C3703	1-113-994-11	TANTAL. CHIP	6.8uF	20%	16V
C3704	1-113-990-11	TANTAL. CHIP	15uF	20%	16V
C3900	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C3901	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C3902	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
C3903	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C3904	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
C3905	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C3906	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C3907	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C3908	1-164-387-11	CERAMIC CHIP	240PF	5%	50V
C3909	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C3910	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C3911	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C3912	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3913	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3914	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C3915	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C3916	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3917	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C3918	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C3919	1-164-315-11	CERAMIC CHIP	470PF	5%	50V

Be sure to read "Note on the CCD Imager replacement" on page 4-8 when changing the CCD imager.

DD-103

Ref. No.	Part No.	Description			Remarks
C3920	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3921	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
C3922	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
C3923	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C3924	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C3925	1-115-171-11	TANTALUM	3.3uF	20%	16V
C3926	1-115-171-11	TANTALUM	3.3uF	20%	16V
C3927	1-115-171-11	TANTALUM	3.3uF	20%	16V
C3928	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3929	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C3930	1-115-171-11	TANTALUM	3.3uF	20%	16V
C3931	1-115-171-11	TANTALUM	3.3uF	20%	10V
C3932	1-115-171-11	TANTALUM	3.3uF	20%	10V
C3933	1-115-171-11	TANTALUM	3.3uF	20%	10V
C3934	1-115-171-11	TANTALUM	3.3uF	20%	10V
C3935	1-104-915-11	TANTAL. CHIP	2.2uF	20%	20V
C3936	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3937	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3938	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3939	1-115-171-11	TANTALUM	3.3uF	20%	10V
C3940	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3941	1-115-171-11	TANTALUM	3.3uF	20%	10V
C3942	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3943	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C3945	1-113-986-11	TANTAL. CHIP	2.2uF	20%	25V
C3946	1-113-986-11	TANTAL. CHIP	2.2uF	20%	25V
C3955	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C3956	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C3957	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C3959	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN3700	1-778-598-21	CONNECTOR, BOARD TO BOARD 60P			
CN3701	1-774-857-11	CONNECTOR, SQUARE TYPE 26P			
CN3900	1-778-596-21	CONNECTOR, BOARD TO BOARD 30P			
		< DIODE >			
D3700	8-719-056-36	DIODE	015AZ12-TPL3		
D3701	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3702	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3704	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3706	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3707	8-719-420-14	DIODE	MA8082-TX		
D3708	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3710	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3711	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3713	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3714	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3717	8-719-404-49	DIODE	MA111-TX		
D3718	8-719-404-49	DIODE	MA111-TX		
D3719	8-719-045-87	DIODE	MA4Z082WA-(TX).SO		
D3723	8-719-056-57	DIODE	MAZS091008SO		
D3900	8-719-421-27	DIODE	MA728-TX		
D3901	8-719-404-49	DIODE	MA111-TX		
D3902	8-719-421-27	DIODE	MA728-TX		
D3905	8-719-056-48	DIODE	1SS388(TPL3)		
D3906	8-719-404-49	DIODE	MA111-TX		
D3907	8-719-421-71	DIODE	MA132WA-TX		
D3909	8-719-404-49	DIODE	MA111-TX		
D3910	8-719-981-59	DIODE	FC805-TL		
D3911	8-719-404-49	DIODE	MA111-TX		
D3912	8-719-404-49	DIODE	MA111-TX		

Ref. No.	Part No.	Description			Remarks
		< IC >			
IC3900	8-759-384-78	IC	SN104241PM-TEB		
IC3901	8-759-510-73	IC	BA10393F-E2		
IC3902	8-759-464-04	IC	S-81340HG-KJ-T1		
IC3904	8-759-058-45	IC	NJM3403AV(TE2)		
		< JACK >			
J3700	1-778-040-11	JACK, SMALL TYPE			
J3701	1-778-518-11	CONNECTOR, EXTERNAL			
		< JUMPER RESISTOR >			
JS3701	1-216-295-91	SHORT	0		
JS3712	1-216-864-11	METAL CHIP	0	5%	1/16W
JS3713	1-216-864-11	METAL CHIP	0	5%	1/16W
JS3714	1-216-864-11	METAL CHIP	0	5%	1/16W
JS3715	1-216-864-11	METAL CHIP	0	5%	1/16W
		< COIL >			
L3900	1-409-529-41	COIL, CHOKE 10uH			
L3901	1-409-529-41	COIL, CHOKE 10uH			
L3902	1-409-529-41	COIL, CHOKE 10uH			
L3903	1-414-396-21	INDUCTOR 4.7uH			
L3904	1-424-674-11	COIL, CHOKE 22uH			
L3905	1-424-674-11	COIL, CHOKE 22uH			
L3906	1-409-532-41	COIL, CHOKE 33uH			
L3907	1-409-532-41	COIL, CHOKE 33uH			
L3908	1-424-674-11	COIL, CHOKE 22uH			
L3909	1-414-756-11	INDUCTOR 47uH			
L3910	1-414-396-21	INDUCTOR 4.7uH			
L3911	1-414-396-21	INDUCTOR 4.7uH			
L3912	1-414-396-21	INDUCTOR 4.7uH			
L3913	1-414-398-11	INDUCTOR 10uH			
L3914	1-414-755-11	INDUCTOR 22uH			
L3915	1-414-400-11	INDUCTOR 22uH			
L3916	1-414-398-11	INDUCTOR 10uH			
		< IC LINK >			
⚠PS3700	1-533-760-21	FUSE (SMD) 1.4A 24V (PC10)			
⚠PS3700	1-533-761-21	LINK, IC (SMD) 1.4A(PC10E)			
⚠PS3701	1-533-760-21	FUSE (SMD) 1.4A 24V (PC10)			
⚠PS3701	1-533-761-21	LINK, IC (SMD) 1.4A(PC10E)			
⚠PS3702	1-533-760-21	FUSE (SMD) 1.4A 24V (PC10)			
⚠PS3702	1-533-761-21	LINK, IC (SMD) 1.4A(PC10E)			
⚠PS3703	1-533-760-21	FUSE (SMD) 1.4A 24V (PC10)			
⚠PS3703	1-533-761-21	LINK, IC (SMD) 1.4A(PC10E)			
⚠PS3900	1-576-123-21	LINK, IC 0.8A			
		< TRANSISTOR >			
Q3700	8-729-037-74	TRANSISTOR	UN9213J-(TX).SO		
Q3901	8-729-037-61	TRANSISTOR	UN9113J-(TX).SO		
Q3902	8-729-037-61	TRANSISTOR	UN9113J-(TX).SO		
Q3903	8-729-037-74	TRANSISTOR	UN9213J-(TX).SO		
Q3904	8-729-041-24	TRANSISTOR	NDS355AN		

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remarks
Q3905	8-729-037-58	TRANSISTOR UN9110J-(TX).SO	
Q3906	8-729-037-61	TRANSISTOR UN9113J-(TX).SO	
Q3907	8-729-041-24	TRANSISTOR NDS355AN	
Q3910	8-729-025-81	TRANSISTOR 2SA1729-RS-TD	
Q3911	8-729-033-14	TRANSISTOR FP107-TL	
Q3912	8-729-033-14	TRANSISTOR FP107-TL	
Q3913	8-729-033-14	TRANSISTOR FP107-TL	
Q3914	8-729-033-14	TRANSISTOR FP107-TL	
Q3915	8-729-033-14	TRANSISTOR FP107-TL	
Q3916	8-729-013-60	TRANSISTOR UN9216J-(TX).SO	
Q3917	8-729-017-61	TRANSISTOR 2SB1581-T1	
Q3918	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q3919	8-729-030-91	TRANSISTOR FW201-TL	
Q3920	8-729-037-71	TRANSISTOR UN9210J-(TX).SO	
Q3921	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q3922	8-729-037-71	TRANSISTOR UN9210J-(TX).SO	
Q3923	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
		< RESISTOR >	
R3900	1-218-974-11	METAL GLAZE 56K 5%	1/16W
R3902	1-218-977-11	METAL GLAZE 100K 5%	1/16W
R3903	1-218-971-11	METAL GLAZE 33K 5%	1/16W
R3904	1-218-960-11	METAL GLAZE 3.9K 5%	1/16W
R3905	1-218-969-11	METAL GLAZE 22K 5%	1/16W
R3906	1-218-964-11	METAL GLAZE 8.2K 5%	1/16W
R3907	1-208-677-11	METAL GLAZE 560 0.50%	1/16W
R3908	1-208-687-11	METAL GLAZE 1.5K 0.50%	1/16W
R3909	1-208-711-11	METAL GLAZE 15K 0.50%	1/16W
R3910	1-208-713-11	METAL GLAZE 18K 0.50%	1/16W
R3911	1-218-967-11	METAL GLAZE 15K 5%	1/16W
R3912	1-218-959-11	METAL GLAZE 3.3K 5%	1/16W
R3913	1-218-969-11	METAL GLAZE 22K 5%	1/16W
R3914	1-218-947-11	METAL GLAZE 330 5%	1/16W
R3915	1-218-957-11	METAL GLAZE 2.2K 5%	1/16W
R3916	1-218-961-11	METAL GLAZE 4.7K 5%	1/16W
R3917	1-208-713-11	METAL GLAZE 18K 0.50%	1/16W
R3918	1-208-927-11	METAL GLAZE 47K 0.50%	1/16W
R3919	1-208-935-11	METAL GLAZE 100K 0.50%	1/16W
R3920	1-218-989-11	METAL GLAZE 1M 0.50%	1/16W
R3921	1-218-962-11	METAL GLAZE 5.6K 5%	1/16W
R3922	1-208-947-11	METAL GLAZE 330K 0.50%	1/16W
R3923	1-208-947-11	METAL GLAZE 330K 0.50%	1/16W
R3924	1-218-958-11	METAL GLAZE 2.7K 0.50%	1/16W
R3925	1-208-935-11	METAL GLAZE 100K 0.50%	1/16W
R3926	1-218-941-11	METAL GLAZE 100 0.50%	1/16W
R3927	1-218-976-11	METAL GLAZE 82K 5%	1/16W
R3928	1-218-965-11	METAL GLAZE 10K 5%	1/16W
R3929	1-218-959-11	METAL GLAZE 3.3K 5%	1/16W
R3930	1-218-965-11	METAL GLAZE 10K 5%	1/16W
R3931	1-218-969-11	METAL GLAZE 22K 5%	1/16W
R3932	1-208-701-11	METAL GLAZE 5.6K 0.50%	1/16W
R3933	1-208-713-11	METAL GLAZE 18K 0.50%	1/16W
R3934	1-208-715-11	METAL GLAZE 22K 0.50%	1/16W
R3935	1-218-849-11	METAL GLAZE 1.2K 0.50%	1/16W
R3936	1-218-958-11	METAL GLAZE 2.7K 0.50%	1/16W
R3937	1-208-713-11	METAL GLAZE 18K 0.50%	1/16W
R3938	1-208-713-11	METAL GLAZE 18K 0.50%	1/16W
R3939	1-208-713-11	METAL GLAZE 18K 0.50%	1/16W
R3940	1-218-941-11	METAL GLAZE 100 0.50%	1/16W

Ref. No.	Part No.	Description	Remarks
R3941	1-218-989-11	METAL GLAZE 1M 5%	1/16W
R3942	1-218-849-11	METAL GLAZE 1.2K 0.50%	1/16W
R3943	1-208-713-11	METAL GLAZE 18K 0.50%	1/16W
R3944	1-208-885-11	METAL GLAZE 820 0.50%	1/16W
R3945	1-218-965-11	METAL GLAZE 10K 5%	1/16W
R3946	1-218-849-11	METAL GLAZE 3.3K 0.50%	1/16W
R3947	1-218-849-11	METAL GLAZE 3.3K 0.50%	1/16W
R3948	1-208-711-11	METAL GLAZE 15K 0.50%	1/16W
R3949	1-218-953-11	METAL GLAZE 1K 5%	1/16W
R3950	1-218-973-11	METAL GLAZE 47K 5%	1/16W
R3951	1-218-977-11	METAL GLAZE 100K 5%	1/16W
R3952	1-208-933-11	METAL GLAZE 82K 0.50%	1/16W
R3953	1-208-715-11	METAL GLAZE 22K 0.50%	1/16W
R3954	1-218-958-11	METAL GLAZE 2.7K 0.50%	1/16W
R3955	1-208-719-11	METAL GLAZE 33K 0.50%	1/16W
R3956	1-218-958-11	METAL GLAZE 2.7K 0.50%	1/16W
R3957	1-208-935-11	METAL GLAZE 100K 0.50%	1/16W
R3959	1-218-951-11	METAL GLAZE 680 5%	1/16W
R3960	1-208-935-11	METAL GLAZE 100K 0.50%	1/16W
R3961	1-218-974-11	METAL GLAZE 56K 0.50%	1/16W
R3962	1-208-927-11	METAL GLAZE 47K 0.50%	1/16W
R3963	1-218-990-11	SHORT 0	
R3964	1-208-935-11	METAL GLAZE 100K 0.50%	1/16W
R3965	1-208-691-11	METAL GLAZE 2.2K 0.50%	1/16W
R3966	1-218-973-11	METAL GLAZE 47K 5%	1/16W
R3967	1-218-969-11	METAL GLAZE 22K 5%	1/16W
R3969	1-208-715-11	METAL GLAZE 22K 0.50%	1/16W
R3970	1-218-977-11	METAL GLAZE 100K 5%	1/16W
R3971	1-208-715-11	METAL GLAZE 22K 0.50%	1/16W
R3973	1-218-973-11	METAL GLAZE 47K 5%	1/16W
R3975	1-218-973-11	METAL GLAZE 47K 5%	1/16W
R3976	1-218-943-11	METAL GLAZE 150 5%	1/16W
		< TRANSFORMER >	
T3900	1-431-492-11	TRANSFORMER, DC/DC CONVERTER	
		< VARISTOR >	
VDR001	1-801-862-11	VARISTOR, CHIP	
VDR002	1-801-923-11	VARISTOR, CHIP	
VDR003	1-801-862-11	VARISTOR, CHIP	

FP-242 FLEXIBLE BOARD
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(Ref.No.: 1,000 series)

Ref. No.	Part No.	Description	Remarks
	3-976-458-01	HOLDER (T), SENSOR	
	3-976-644-01	SENSOR, HOLDER, S	
		< DIODE >	
D901	8-719-050-98	DIODE LN57.SO	
		< HOLE ELEMENT >	
H901	8-719-033-37	ELEMENT, HALL HW-105C	
H902	8-719-033-37	ELEMENT, HALL HW-105C	
		< RESISTOR >	
R901	1-216-807-11	METAL CHIP 68 5%	1/16W
R902	1-216-807-11	METAL CHIP 68 5%	1/16W
R903	1-216-807-11	METAL CHIP 68 5%	1/16W
R904	1-216-807-11	METAL CHIP 68 5%	1/16W

FP-584 FP-615 MR-39

Ref. No.	Part No.	Description			Remarks
		FP-584 FLEXIBLE BOARD			
		**********************			
					(Ref.No.: 1,000 series)
	3-976-824-01	HOLDER, FPC			
		< CONNECTOR >			
CN901	1-770-312-11	CONNECTOR 4P			
		< TRANSISTOR >			
Q901	8-729-028-71	TRANSISTOR PN166.SO			
Q902	8-729-028-71	TRANSISTOR PN166.SO			
		< SWITCH >			
S901	1-762-351-11	SWITCH, PUSH (1 KEY)(REC PROOF)			
S903	1-572-467-21	SWITCH, PUSH (1 KEY)(C.C.DOWN)			
		FP-615 BOARD, COMPLETE			
		***********************			
					(Ref.No.: 1,000 series)
	1-667-118-11	FP-615 FLEXIBLE BOARD			
		< SENSOR >			
SE501	1-801-731-81	SENSOR, ANGULAR VELOCITY (PITCH)			
	A-7067-064-A	MR-39 BOARD, COMPLETE			
		*********************			
					(Ref.No.: 10,000 series)
		< CAPACITOR >			
C2700	1-164-947-11	CERAMIC CHIP	0.01uF		16V
C2701	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2702	1-164-947-11	CERAMIC CHIP	0.01uF		16V
C2703	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C2704	1-164-947-11	CERAMIC CHIP	0.01uF		16V
C2708	1-164-357-11	CERAMIC CHIP	1000PF	5%	50V
C2709	1-164-848-11	CERAMIC CHIP	8PF	0.5PF	16V
C2712	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2713	1-164-947-11	CERAMIC CHIP	0.01uF		16V
C2714	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C2715	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C2718	1-164-947-11	CERAMIC CHIP	0.01uF		16V
C2720	1-164-947-11	CERAMIC CHIP	0.01uF		16V
C2721	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C2724	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C2725	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2726	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2727	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2728	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2731	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2732	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C2733	1-164-848-11	CERAMIC CHIP	8PF	0.5PF	16V
C2735	1-164-947-11	CERAMIC CHIP	0.01uF		16V
C2736	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C2737	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C2738	1-164-866-11	CERAMIC CHIP	47PF	5%	16V
C2744	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2745	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2747	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C2749	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C2750	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C2751	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C2752	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C2753	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2754	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2755	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2757	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2758	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C2759	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C2763	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C2769	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2770	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2771	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2772	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2773	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2774	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2799	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3100	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C3101	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3102	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C3103	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C3104	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
C3105	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3106	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3107	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3108	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C3109	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3110	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C3114	1-164-739-11	CERAMIC CHIP	560PF	5%	50V
C3115	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C3116	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C3117	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3118	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3119	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3120	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3121	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3123	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3124	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C3125	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3126	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C3127	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3128	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3129	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3130	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C3131	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3132	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C3133	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3134	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3135	1-107-687-11	TANTAL. CHIP	3.3uF	20%	20V
C3136	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C3137	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3138	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C3139	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C3140	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3141	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3142	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C3143	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C3144	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3145	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3146	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description	Remarks
C3147	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C3148	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C3149	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C3150	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C3151	1-107-686-11	TANTAL. CHIP 4.7uF 20%	16V
C3152	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C3153	1-164-850-11	CERAMIC CHIP 10PF 0.5PF	16V
C3154	1-164-850-11	CERAMIC CHIP 10PF 0.5PF	16V
C3155	1-135-181-21	TANTALUM CHIP 4.7uF 20%	6.3V
C3157	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C3158	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C6100	1-104-908-11	TANTAL. CHIP 47uF 20%	4V
C6101	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C6102	1-164-937-11	CERAMIC CHIP 0.001uF 10%	16V
C6103	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C6104	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C6105	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C6106	1-164-943-11	CERAMIC CHIP 0.01uF 10%	16V
C6107	1-107-823-11	CERAMIC CHIP 0.47uF 10%	16V
C6108	1-107-820-11	CERAMIC CHIP 0.1uF	16V
C8601	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C8603	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C8605	1-104-913-11	TANTAL. CHIP 10uF 20%	16V
		< CONNECTOR >	
CN2708	1-766-340-21	CONNECTOR, FFC/FPC 10P	
CN3100	1-764-526-11	CONNECTOR, FFC/FPC (ZIF) 18P	
CN3101	1-766-336-21	CONNECTOR, FFC/FPC 6P	
CN3102	1-691-381-11	CONNECTOR, FFC/FPC 17P	
CN3103	1-766-341-21	CONNECTOR, FFC/FPC 11P	
CN3104	1-691-483-21	CONNECTOR, FFC/FPC 4P	
CN6101	1-778-594-31	CONNECTOR, BOARD TO BOARD 80P	
CN6102	1-778-591-21	CONNECTOR, BOARD TO BOARD 30P	
		< DIODE >	
D2700	8-719-056-23	DIODE MA2S111-(K8).SO	
D2701	8-719-056-23	DIODE MA2S111-(K8).SO	
D2702	8-719-052-27	DIODE 1SS351-TB	
D2703	8-719-052-27	DIODE 1SS351-TB	
D3100	8-719-056-57	DIODE MAZS091008SO	
D3101	8-719-045-87	DIODE MA4Z082WA-(TX).SO	
D6100	8-719-027-95	DIODE HSM88WK-TL	
D6101	8-719-055-86	DIODE KV1470TL1-3	
D6102	8-719-951-20	DIODE BR1102W-TR	
D6103	8-719-045-87	DIODE MA4Z082WA-(TX).SO	
D8602	8-719-066-29	DIODE DCW2810	
D8603	8-719-064-62	DIODE DAK48-TP	
		< INDUCTOR >	
FB3100	1-543-955-11	INDUCTOR 0UH	
FB6100	1-543-955-11	INDUCTOR 0UH	
FB6101	1-500-241-21	INDUCTOR 0UH	
		< FILTER >	
FL2700	1-411-951-21	DELAY LINE, LC (23NS)	
FL2701	1-233-734-21	FILTER, LOW PASS	

Ref. No.	Part No.	Description	Remarks
		< IC >	
IC2700	8-759-426-25	IC MB88346LPFV-G-BND-ER	
IC2701	8-752-371-18	IC CXD2302Q-T4	
IC2702	8-752-070-12	IC CXA1762Q-T4	
IC2703	8-752-073-50	IC CXA2018Q-T4	
IC2704	8-752-074-59	IC CXA2023R-T4	
IC3100	1-801-872-11	IC TGA-P912032-HA-SGX4810MP2MS	
IC3101	8-759-433-16	IC MB4195PFV-G-BND-ER	
IC3102	8-759-431-30	IC CXA8062R-EB	
IC3103	8-759-385-94	IC CXA8053Q-TE-B	
IC3104	8-759-434-46	IC TA8486F(EL)	
IC6101	1-801-476-11	IC TGA-D3105HA	
IC6102	8-759-445-93	IC AK6440HM-E2	
IC6103	8-749-012-25	IC RS-170-TU	
		< COIL >	
L2700	1-412-963-11	INDUCTOR 100uH	
L2703	1-412-963-11	INDUCTOR 100uH	
L2704	1-414-754-11	INDUCTOR 10uH	
L2705	1-414-754-11	INDUCTOR 10uH	
L2707	1-414-754-11	INDUCTOR 10uH	
L2708	1-414-754-11	INDUCTOR 10uH	
L2709	1-414-754-11	INDUCTOR 10uH	
L2710	1-414-754-11	INDUCTOR 10uH	
L2711	1-414-754-11	INDUCTOR 10uH	
L3100	1-414-754-11	INDUCTOR 10uH	
L3101	1-414-754-11	INDUCTOR 10uH	
L3102	1-414-754-11	INDUCTOR 10uH	
L3103	1-414-754-11	INDUCTOR 10uH	
L3104	1-414-751-11	INDUCTOR 1uH	
L6101	1-412-936-11	INDUCTOR 0.56uH	
		< FUSE >	
⚠PS8601	1-533-874-11	FUSE, MICRO	
		< TRANSISTOR >	
Q2701	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q2702	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q2703	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q2704	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q2705	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q2706	8-729-037-72	TRANSISTOR UN9211J-(TX).SO	
Q2707	8-729-141-48	TRANSISTOR 2SB624-T1BV4	
Q2708	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q2709	8-729-037-72	TRANSISTOR UN9211J-(TX).SO	
Q2710	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q2711	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q3100	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q6100	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q8603	8-729-122-63	TRANSISTOR 2SA1226	
Q8604	8-729-140-75	TRANSISTOR 2SD999-T1-CLCK	

Note :	**Note :**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MR-39

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R2701	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2703	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R2704	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2705	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2706	1-218-990-11	SHORT	0		
R2707	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R2709	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R2711	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2712	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2713	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R2714	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R2717	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2718	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2719	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R2720	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R2721	1-218-939-11	METAL GLAZE	68	5%	1/16W
R2727	1-218-948-11	METAL GLAZE	390	5%	1/16W
R2735	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2737	1-218-950-11	METAL GLAZE	560	5%	1/16W
R2738	1-218-944-11	METAL GLAZE	180	5%	1/16W
R2740	1-218-967-11	METAL GLAZE	15K	5%	1/16W
R2741	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R2743	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2744	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2747	1-218-949-11	METAL GLAZE	470	5%	1/16W
R2748	1-218-942-11	METAL GLAZE	120	5%	1/16W
R2749	1-218-942-11	METAL GLAZE	120	5%	1/16W
R2750	1-218-956-11	METAL GLAZE	1.8K	5%	1/16W
R2751	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2752	1-218-948-11	METAL GLAZE	390	0.50%	1/16W
R2753	1-208-671-11	METAL GLAZE	330	0.50%	1/16W
R2754	1-208-671-11	METAL GLAZE	330	0.50%	1/16W
R2755	1-218-948-11	METAL GLAZE	390	0.50%	1/16W
R2756	1-218-956-11	METAL GLAZE	1.8K	5%	1/16W
R2757	1-218-963-11	METAL GLAZE	6.8K	5%	1/16W
R2758	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R2759	1-218-966-11	METAL GLAZE	12K	5%	1/16W
R2760	1-218-963-11	METAL GLAZE	6.8K	5%	1/16W
R2761	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2765	1-218-947-11	METAL GLAZE	330	5%	1/16W
R2766	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R2767	1-218-948-11	METAL GLAZE	390	5%	1/16W
R2768	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R2769	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R2770	1-218-947-11	METAL GLAZE	330	5%	1/16W
R2817	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R2818	1-218-942-11	METAL GLAZE	120	5%	1/16W
R2819	1-218-942-11	METAL GLAZE	120	5%	1/16W
R2820	1-218-939-11	METAL GLAZE	68	5%	1/16W
R2821	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2822	1-218-939-11	METAL GLAZE	68	5%	1/16W
R2823	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2824	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R3100	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R3101	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R3102	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R3103	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R3104	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3105	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3106	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3107	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3108	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3109	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R3110	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R3111	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R3112	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3113	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R3114	1-208-935-11	METAL GLAZE	100K	0.50%	1/16W
R3115	1-208-947-11	METAL GLAZE	330K	0.50%	1/16W
R3116	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3117	1-208-927-11	METAL GLAZE	47K	0.50%	1/16W
R3118	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3119	1-208-943-11	METAL GLAZE	220K	0.50%	1/16W
R3120	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R3122	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R3123	1-218-979-11	METAL GLAZE	150K	5%	1/16W
R3124	1-218-963-11	METAL GLAZE	6.8K	5%	1/16W
R3125	1-208-939-11	METAL GLAZE	150K	0.50%	1/16W
R3126	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R3127	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3128	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3129	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3130	1-208-709-11	METAL GLAZE	12K	0.50%	1/16W
R3131	1-218-974-11	METAL GLAZE	56K	0.50%	1/16W
R3132	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3133	1-208-691-11	METAL GLAZE	2.2K	0.50%	1/16W
R3134	1-208-691-11	METAL GLAZE	2.2K	0.50%	1/16W
R3138	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3139	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3140	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R3141	1-217-671-11	METAL CHIP	1	5%	1/10W
R3142	1-217-671-11	METAL CHIP	1	5%	1/10W
R3143	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3144	1-208-935-11	METAL GLAZE	100K	0.50%	1/16W
R3145	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R3146	1-218-941-11	METAL GLAZE	100	5%	1/16W
R3147	1-218-941-11	METAL GLAZE	100	5%	1/16W
R3148	1-218-941-11	METAL GLAZE	100	5%	1/16W
R3149	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R3150	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R3151	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3152	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3153	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R3154	1-217-671-11	METAL CHIP	1	5%	1/10W
R3155	1-217-671-11	METAL CHIP	1	5%	1/10W
R3156	1-217-671-11	METAL CHIP	1	5%	1/10W
R3157	1-217-671-11	METAL CHIP	1	5%	1/10W
R3158	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R3159	1-217-671-11	METAL CHIP	1	5%	1/10W
R3160	1-217-671-11	METAL CHIP	1	5%	1/10W
R3161	1-217-671-11	METAL CHIP	1	5%	1/10W
R3162	1-217-671-11	METAL CHIP	1	5%	1/10W
R3163	1-218-940-11	METAL GLAZE	82	5%	1/16W
R3164	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R3165	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3166	1-218-942-11	METAL GLAZE	120	5%	1/16W
R3167	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3168	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R3169	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R3173	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R3174	1-218-960-11	METAL GLAZE	3.9K	5%	1/16W
R3175	1-218-960-11	METAL GLAZE	3.9K	5%	1/16W
R3176	1-208-721-11	METAL GLAZE	39K	0.50%	1/16W
R3177	1-218-970-11	METAL GLAZE	27K	5%	1/16W
R3178	1-218-967-11	METAL GLAZE	15K	5%	1/16W
R3181	1-208-675-11	METAL GLAZE	470	0.50%	1/16W
R6100	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R6101	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R6102	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R6103	1-218-946-11	METAL GLAZE	270	5%	1/16W
R6104	1-218-941-11	METAL GLAZE	100	5%	1/16W
R6105	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R6106	1-218-949-11	METAL GLAZE	470	5%	1/16W
R6107	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R6111	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R6112	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R6113	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R6114	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R6115	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R6116	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R6117	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R6118	1-218-946-11	METAL GLAZE	270	5%	1/16W
R6119	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R6120	1-218-946-11	METAL GLAZE	270	5%	1/16W
R8607	1-216-817-11	METAL CHIP	470	5%	1/16W
R8608	1-216-001-00	METAL CHIP	10	5%	1/10W
R8609	1-216-609-11	METAL CHIP	18	0.5%	1/10W
R8610	1-218-990-11	SHORT	0		

< VIBRATOR >

X3100	1-767-205-21	VIBRATOR, CRYSTAL 20MHz			

A-7093-430-A PD-97 BOARD, COMPLETE (SERVICE ASSY)
****
(Ref.No.: 30,000 series)

*	3-979-994-01	SHEET, INVERTOR			

< CAPACITOR >

C5501	1-113-990-11	TANTAL. CHIP	15uF	20%	16V
C5502	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5600	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V
C5601	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5602	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C5603	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C5604	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C5605	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5614	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C5615	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C5616	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C5617	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C5618	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C5619	1-113-987-11	TANTAL. CHIP	4.7uF	20%	25V
C5620	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5621	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C5622	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C5623	1-115-566-11	CERAMIC CHIP	4.7uF	10%	10V
C5624	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C5625	1-164-505-11	CERAMIC CHIP	2.2uF		16V

Ref. No.	Part No.	Description			Remarks
C5626	1-107-686-11	TANTAL. CHIP	4.7uF	20%	16V
C5800	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5801	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C5802	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C5803	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V
C5804	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5805	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C5806	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C5807	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5808	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C5811	1-113-987-11	TANTAL. CHIP	4.7uF	20%	25V
C5812	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6001	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6003	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C6005	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C6006	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C6008	1-164-850-11	CERAMIC CHIP	18PF	5%	16V
C6009	1-135-211-11	TANTAL. CHIP	6.8uF	20%	6.3V
C6010	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6011	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6012	1-164-876-11	CERAMIC CHIP	120PF	5%	16V
C6013	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C6014	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C6015	1-107-687-11	TANTAL. CHIP	3.3uF	20%	20V
C6016	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C6018	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C6019	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C6020	1-164-346-11	CERAMIC CHIP	1uF		16V
C6021	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C6022	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C6023	1-107-685-11	TANTAL. CHIP	15uF	20%	6.3V
C6024	1-164-676-11	CERAMIC CHIP	2200PF	5%	16V

< CONNECTOR >

CN5600	1-779-893-11	PIN, CONNECTOR (PC BOARD) 8P
CN5601	1-778-509-21	PIN, CONNECTOR (PC BOARD) 11P
CN5602	1-766-335-21	CONNECTOR, FFC/FPC 5P
CN5801	1-750-357-11	CONNECTOR, FFC/FPC (ZIF) 24P

< DIODE >

D5502	8-719-059-47	DIODE	PG1111R-TR
D5600	8-719-056-61	DIODE	015AZ8.2-TPL3
D5800	8-713-102-80	DIODE	1T369-01-T8A
D6001	8-719-056-48	DIODE	1SS388(TPL3)
D6002	8-719-056-23	DIODE	MA2S111-(K8).SO

< INDUCTOR >

FB5601	1-543-955-11	INDUCTOR	0UH
FB5602	1-543-955-11	INDUCTOR	0UH

< IC >

IC5600	8-752-079-72	IC	CXA1819R-T4
IC5601	8-759-426-24	IC	TC7ST08FU(TE85R)
IC5800	8-759-364-05	IC	M62376GP-65AD
IC5801	8-752-386-44	IC	CXD2446R-T4
IC6000	8-759-521-35	IC	TL5001CDR
IC6001	8-759-398-90	IC	S-81236PG-P7-T1

Ref. No.	Part No.	Description			Remarks
		< COIL >			
L5500	1-414-396-21	INDUCTOR 4.7uH			
L5600	1-414-757-11	INDUCTOR 100uH			
L5800	1-414-757-11	INDUCTOR 100uH			
L5801	1-412-947-11	INDUCTOR 4.7uH			
L6000	1-414-754-11	INDUCTOR 10uH			
L6001	1-414-757-11	INDUCTOR 100uH			
L6002	1-414-757-11	INDUCTOR 100uH			
L6003	1-216-298-00	METAL CHIP	2.2	5%	1/10W
		< FLUORECENT INDICATOR >			
⚠ND5500	1-517-586-11	TUBE, FLUORESCENT,COLD CATHODE			
		< TRANSISTOR >			
Q5513	8-729-037-60	TRANSISTOR	UN9112J-(TX).SO		
Q5600	8-729-427-74	TRANSISTOR	XP4601-TXE		
Q5601	8-729-427-74	TRANSISTOR	XP4601-TXE		
Q5602	8-729-427-74	TRANSISTOR	XP4601-TXE		
Q5603	8-729-037-53	TRANSISTOR	2SB1462J-QR(TX).SO		
Q5604	8-729-037-53	TRANSISTOR	2SB1462J-QR(TX).SO		
Q5605	8-729-037-53	TRANSISTOR	2SB1462J-QR(TX).SO		
Q5800	8-729-037-74	TRANSISTOR	UN9213J-(TX).SO		
Q5801	8-729-037-74	TRANSISTOR	UN9213J-(TX).SO		
Q5802	8-729-037-53	TRANSISTOR	2SB1462J-QR(TX).SO		
Q5803	8-729-037-53	TRANSISTOR	2SB1462J-QR(TX).SO		
Q6000	8-729-037-74	TRANSISTOR	UN9213J-(TX).SO		
Q6001	8-729-037-74	TRANSISTOR	UN9213J-(TX).SO		
Q6002	8-729-041-23	TRANSISTOR	NDS356AP		
Q6004	8-729-041-23	TRANSISTOR	NDS356AP		
Q6005	8-729-037-74	TRANSISTOR	UN9213J-(TX).SO		
Q6006	8-729-037-52	TRANSISTOR	2SD2216J-QR(TX).SO		
Q6007	8-729-804-41	TRANSISTOR	2SB1122-ST-TD		
Q6008	8-729-037-53	TRANSISTOR	2SB1462J-QR(TX).SO		
		< RESISTOR >			
R5501	1-218-941-11	METAL GLAZE	100	5%	1/16W
R5502	1-218-990-11	SHORT	0		
R5601	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R5602	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R5603	1-218-972-11	METAL GLAZE	39K	5%	1/16W
R5604	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R5605	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R5606	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R5607	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R5623	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R5624	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R5625	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R5626	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R5628	1-218-941-11	METAL GLAZE	100	5%	1/16W
R5629	1-208-715-11	METAL GLAZE	22K	0.50%	1/16W
R5630	1-218-982-11	METAL GLAZE	270K	0.50%	1/16W
R5631	1-218-941-11	METAL GLAZE	100	5%	1/16W
R5632	1-218-941-11	METAL GLAZE	100	5%	1/16W
R5633	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R5634	1-218-981-11	METAL GLAZE	220K	5%	1/16W
R5635	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R5636	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R5637	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R5638	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R5639	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R5641	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R5800	1-218-967-11	METAL GLAZE	15K	5%	1/16W
R5801	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R5802	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R5803	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R5804	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R5805	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R5807	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R5808	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R5809	1-218-990-11	SHORT	0		
R5810	1-216-864-11	METAL CHIP	0	5%	1/16W
R5811	1-216-864-11	METAL CHIP	0	5%	1/16W
R5812	1-218-990-11	SHORT	0		
R5813	1-218-990-11	SHORT	0		
R5814	1-218-929-11	METAL GLAZE	10	5%	1/16W
R5815	1-218-929-11	METAL GLAZE	10	5%	1/16W
R6000	1-218-981-11	METAL GLAZE	220K	5%	1/16W
R6001	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R6002	1-218-970-11	METAL GLAZE	27K	5%	1/16W
R6003	1-218-981-11	METAL GLAZE	220K	5%	1/16W
R6004	1-218-951-11	METAL GLAZE	680	5%	1/16W
R6005	1-218-978-11	METAL GLAZE	120K	0.50%	1/16W
R6006	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R6007	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R6008	1-208-715-11	METAL GLAZE	22K	0.50%	1/16W
R6009	1-218-951-11	METAL GLAZE	680	5%	1/16W
R6010	1-208-711-11	METAL GLAZE	15K	0.50%	1/16W
R6011	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R6012	1-208-699-11	METAL GLAZE	4.7K	0.50%	1/16W
R6013	1-208-711-11	METAL GLAZE	15K	0.50%	1/16W
R6014	1-208-927-11	METAL GLAZE	47K	0.50%	1/16W
R6015	1-208-719-11	METAL GLAZE	33K	0.50%	1/16W
R6016	1-218-874-11	METAL GLAZE	13K	0.50%	1/16W
R6017	1-208-713-11	METAL GLAZE	18K	0.50%	1/16W
R6019	1-218-965-11	METAL GLAZE	10K	5%	1/16W
		< VARIABLE RESISTOR >			
RV6000	1-238-856-11	RES, ADJ, CERMET 10K (15.5V ADJ)			
		< TRANSFORMER >			
T5500	1-475-399-11	TRANSFORMER UNIT, INVERTER			
T6000	1-431-540-11	TRANSFORMER, DC/DC CONVERTER			

Ref. No.	Part No.	Description			Remarks
	A-7067-063-A	VC-199 BOARD, COMPLETE (PC10)			
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	A-7067-108-A	VC-199P BOARD, COMPLETE			
		***********************			
					(PC10E:E,HK,AUS,CN,JE)
	A-7067-122-A	VC-199P BOARD, COMPLETE (PC10E:AEP,UK)			
		***********************			
					(Ref.No.: 20,000 series)
		< CAPACITOR >			
C208	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C209	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C212	1-164-852-11	CERAMIC CHIP	12PF	5%	16V
C215	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C216	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

Note :	Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remarks
C222	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C223	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C229	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C230	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C231	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C233	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C234	1-164-845-11	CERAMIC CHIP	5PF	0.25PF	16V
C236	1-164-862-11	CERAMIC CHIP	33PF	5%	16V
C237	1-164-935-11	CERAMIC CHIP	470PF	10%	16V
C238	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C241	1-135-202-21	TANTAL. CHIP	22uF	20%	4V
C243	1-115-156-11	CERAMIC CHIP	1uF		10V
C257	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C267	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C268	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C288	1-164-941-11	CERAMIC CHIP	0.0047uF	10%	16V
C293	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C294	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C295	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C296	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C297	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C298	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C300	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C301	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C302	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C303	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C304	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C305	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C307	1-113-988-11	TANTAL. CHIP	68uF	20%	4V
C308	1-164-346-11	CERAMIC CHIP	1uF		16V
C309	1-115-156-11	CERAMIC CHIP	1uF		10V
C310	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C311	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C312	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C313	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C316	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C317	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C318	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C401	1-117-806-11	CERAMIC CHIP	0.1uF	10%	6.3V
C402	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C403	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C404	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C405	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C406	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C407	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C408	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C409	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C410	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C411	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C412	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C413	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C415	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C416	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C417	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C418	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C419	1-104-752-11	TANTAL. CHIP	33uF	20%	6.3V
C420	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C424	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C425	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C426	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V

Ref. No.	Part No.	Description			Remarks
C427	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C428	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C429	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C430	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1000	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C1001	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1002	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1003	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1004	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1005	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1009	1-164-949-11	CERAMIC CHIP	0.047uF		16V
C1010	1-164-949-11	CERAMIC CHIP	0.047uF		16V
C1011	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1013	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1100	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1101	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C1102	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1103	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1104	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1105	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1106	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1107	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1108	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1109	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1110	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1112	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1114	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1115	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1116	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1117	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1118	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1119	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C1120	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1121	1-115-156-11	CERAMIC CHIP	1uF		10V
C1122	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C1123	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1124	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1125	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1126	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1127	1-115-156-11	CERAMIC CHIP	1uF		10V
C1128	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1129	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1130	1-113-996-11	TANTAL. CHIP	220uF	20%	4V
C1131	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C1132	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1133	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C1134	1-113-996-11	TANTAL. CHIP	220uF	20%	4V
C1135	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1136	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1137	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1139	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1140	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1141	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C1143	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1500	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C1501	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C1502	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C1503	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1504	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C1506	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

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Ref. No.	Part No.	Description			Remarks
C1700	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1703	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1704	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1705	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1900	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C1901	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1902	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1903	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1904	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1905	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C1906	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1907	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1908	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1909	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C1910	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1911	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C1912	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1913	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1914	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C1915	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C1916	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C1917	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2111	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C2112	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2304	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2305	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2306	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C2307	1-113-994-11	TANTAL. CHIP	6.8uF	20%	16V
C2308	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C2309	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C2310	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2311	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2312	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2313	1-164-854-11	CERAMIC CHIP	15PF	5%	16V
C2314	1-164-858-11	CERAMIC CHIP	22PF	5%	16V
C2317	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2320	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2321	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2322	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2329	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2330	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2332	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C2334	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2335	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2336	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2341	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2342	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2343	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2344	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2346	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2348	1-113-994-11	TANTAL. CHIP	6.8uF	20%	16V
C2349	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2350	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2351	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2353	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C2354	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C2355	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2356	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C2357	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3500	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3501	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3504	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3506	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3512	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C3514	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C3520	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3521	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3527	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3528	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C3529	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3530	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C3531	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C4700	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4701	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4702	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4703	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C4704	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C4705	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C4706	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4707	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C4708	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C4709	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4710	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C4711	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4725	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4727	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C4729	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4730	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4731	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C4736	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4740	1-164-934-11	CERAMIC CHIP	330PF	10%	16V
C4741	1-164-934-11	CERAMIC CHIP	330PF	10%	16V
C4743	1-164-934-11	CERAMIC CHIP	330PF	10%	16V
C4746	1-164-934-11	CERAMIC CHIP	330PF	10%	16V
C4747	1-164-934-11	CERAMIC CHIP	330PF	10%	16V
C4748	1-164-934-11	CERAMIC CHIP	330PF	10%	16V
C4749	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C4750	1-164-934-11	CERAMIC CHIP	330PF	10%	16V
C4751	1-164-934-11	CERAMIC CHIP	330PF	10%	16V
C4752	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C4753	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C4754	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C4761	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C4762	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C4763	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C4764	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4765	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4766	1-104-752-11	TANTAL. CHIP	33uF	20%	6.3V
C4767	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4768	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C4771	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4772	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4773	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C4774	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4775	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C4776	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4788	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C4789	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C4790	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C4791	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V

Ref. No.	Part No.	Description			Remarks
C4792	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C4793	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C4794	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4795	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C4796	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C4797	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C4798	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4799	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C4800	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C4802	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4803	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4806	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C4808	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4809	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4811	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4812	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4813	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C4814	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C4815	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4816	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4817	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4818	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4821	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C4822	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C4823	1-115-156-11	CERAMIC CHIP	1uF		10V
C4824	1-115-156-11	CERAMIC CHIP	1uF		10V
C4825	1-104-912-11	TANTAL. CHIP	3.3uF	20%	16V
C4826	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4827	1-115-156-11	CERAMIC CHIP	1uF		10V
C4828	1-164-882-11	CERAMIC CHIP	220PF	5%	16V
C4829	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4830	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4831	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C4832	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C4833	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C4834	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C4835	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C4836	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C4837	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4838	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4839	1-115-156-11	CERAMIC CHIP	1uF		10V
C4840	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
C4843	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C4844	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4845	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4846	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4847	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4848	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4849	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4850	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C4851	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C4852	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C8401	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8402	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C8403	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8404	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C8405	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C8406	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8407	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8408	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

Ref. No.	Part No.	Description			Remarks
C8409	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C8410	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C8411	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C8412	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C8413	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C8414	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8415	1-164-668-11	CERAMIC CHIP	510PF	5%	50V
C8416	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C8417	1-164-844-11	CERAMIC CHIP	4PF	0.25PF	16V
C8418	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C8419	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C8420	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8421	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8422	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C8424	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C8425	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8426	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C8427	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C8428	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C8429	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8430	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C8431	1-164-864-11	CERAMIC CHIP	39PF	5%	16V
C8432	1-164-862-11	CERAMIC CHIP	33PF	5%	16V
C8435	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
C8436	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	16V
		< CONNECTOR >			
CN200	1-778-592-21	CONNECTOR, BOARD TO BOARD 50P			
CN1000	1-778-590-21	CONNECTOR, BOARD TO BOARD 20P			
CN1001	1-779-893-11	PIN, CONNECTOR (PC BOARD) 8P			
CN1002	1-778-509-21	PIN, CONNECTOR (PC BOARD) 11P			
CN2300	1-778-591-21	CONNECTOR, BOARD TO BOARD 30P			
CN2301	1-778-793-21	CONNECTOR, FFC/FPC (ZIF) 5P			
CN3500	1-778-519-11	CONNECTOR, SQUARE TYPE 4P			
CN4700	1-778-507-21	PIN, CONNECTOR (PC BOARD) 4P			
CN4701	1-778-506-21	PIN, CONNECTOR (PC BOARD) 2P			
CN6200	1-778-593-21	CONNECTOR, BOARD TO BOARD 60P			
CN6201	1-778-599-31	CONNECTOR, BOARD TO BOARD 80P			
CN6202	1-778-595-21	CONNECTOR, BOARD TO BOARD 20P			
		< DIODE >			
D200	8-713-102-28	DIODE	1T379-04-T8A		
D202	8-713-101-85	DIODE	1T363-01-T8A		
D203	8-713-101-85	DIODE	1T363-01-T8A		
D1900	8-719-055-86	DIODE	KV1470TL1-3		
D1901	8-719-027-95	DIODE	HSM88WK		
D1902	8-719-055-86	DIODE	KV1470TL1-3		
D1903	8-719-027-95	DIODE	HSM88WK		
D1904	8-719-055-86	DIODE	KV1470TL1-3		
D2301	8-719-420-51	DIODE	MA729		
D2303	8-719-056-23	DIODE	MA2S111-(K8).SO		
D2304	8-719-056-23	DIODE	MA2S111-(K8).SO		
D2305	8-719-056-23	DIODE	MA2S111-(K8).SO		
D2306	8-719-420-51	DIODE	MA729		
D2307	8-719-421-27	DIODE	MA728		
D2309	8-719-056-61	DIODE	MAZS082008SO		
D4700	8-719-056-23	DIODE	MA2S111-(K8).SO		
D4702	8-719-404-49	DIODE	MA111		
D4706	8-719-421-67	DIODE	MA132WK-TX		
D4707	8-719-056-23	DIODE	MA2S111-(K8).SO		
D4708	8-719-055-86	DIODE	KV1470TL1-3		
D4710	8-719-404-49	DIODE	MA111		

Ref. No.	Part No.	Description	Remarks
D4711	8-719-056-23	DIODE MA2S111-(K8).SO	
D4712	8-719-045-87	DIODE MA4Z082WA-(TX).SO	
D4713	8-719-421-67	DIODE MA132WK	
D4714	8-719-056-23	DIODE MA2S111-(K8).SO	
D4715	8-719-056-23	DIODE MA2S111-(K8).SO	
		< INDUCTOR >	
FB200	1-414-228-11	INDUCTOR 0UH	
FB203	1-414-233-21	INDUCTOR 0UH	
FB204	1-414-228-11	INDUCTOR 0UH	
FB205	1-414-228-11	INDUCTOR 0UH	
FB206	1-500-284-21	INDUCTOR 0UH	
FB207	1-500-284-21	INDUCTOR 0UH	
FB401	1-414-228-11	INDUCTOR 0UH	
FB1100	1-543-955-11	INDUCTOR 0UH	
FB1101	1-543-955-11	INDUCTOR 0UH	
FB1500	1-543-960-21	INDUCTOR 0UH	
FB1501	1-543-960-21	INDUCTOR 0UH	
FB1900	1-543-955-11	INDUCTOR 0UH	
FB2100	1-543-955-11	INDUCTOR 0UH	
FB3501	1-500-242-21	INDUCTOR 0UH	
FB3502	1-543-949-11	INDUCTOR 0UH	
FB4702	1-543-955-11	INDUCTOR 0UH	
		< FILTER >	
FL1100	1-233-733-21	FILTER, LOW PASS	
FL1101	1-233-732-21	FILTER, BAND PASS (3.58MHz)(PC10)	
FL1101	1-233-735-21	FILTER, BAND PASS (4.43MHZ)(PC10E)	
		< IC >	
IC200	8-752-379-51	IC CXD2426R (PC10)	
IC200	8-752-389-79	IC CXD2426AR-T4 (PC10E)	
IC202	8-759-445-93	IC AK6440HM-E2	
IC205	1-803-127-11	IC TGA-P912032HA-SGX4850MP2CA	
IC206	1-801-472-11	IC TGA-D2176HA	
IC207	8-759-096-87	IC TC7WU04FU(TE12R)	
IC208	8-759-067-52	IC MB88347PFV-G-BND-ER	
IC211	1-801-483-11	IC TGA-D2175AHA	
IC214	8-752-384-82	IC CXD3119R	
IC216	8-759-462-43	IC AD9800JCSTRL	
IC401	8-759-337-40	IC NJM2904V(TE2)	
IC402	8-759-475-79	IC uPD16833AG3-E2	
IC403	8-759-444-87	IC NJM324V(TE2)	
IC404	8-752-377-38	IC CXD2430N	
IC405	8-759-082-60	IC TC7S66FU	
IC406	8-759-082-60	IC TC7S66FU	
IC407	8-759-388-63	IC NJU7064V(TE2)	
IC1000	1-801-891-11	IC TGA-D312HF	
IC1001	8-759-058-62	IC TC7S08FU(TE85R)	
IC1100	1-801-474-11	IC TGA-D3100HA	
IC1101	8-759-427-85	IC MB88146APFV-G-BND-ER	
IC1102	1-801-481-11	IC TGA-A2008HF	
IC1103	8-759-474-75	IC uPD6466GS-623-GLG-E2	
IC1104	8-759-082-58	IC TC7W08FU	
IC1105	8-759-058-62	IC TC7S08FU(TE85R)	
IC1106	8-759-058-55	IC TC7S02FU(TE85R)	
IC1500	1-801-689-11	IC TGA-D3103HA	
IC1501	8-759-488-73	IC ZA4024GFZR	
IC1502	8-759-488-73	IC ZA4024GFZR	
IC1700	8-759-433-17	IC uPD482445LG4-B10-9MH-E2-HDC	

Ref. No.	Part No.	Description	Remarks
IC1701	1-801-484-11	IC TGA-uPD82014UB-501-J	
IC1900	1-801-477-11	IC TGA-D3106HA	
IC1901	1-801-478-11	IC TGA-D3107HA	
IC2100	1-801-933-11	IC TGA-P912032-055HA	
IC2300	8-759-398-90	IC S-81236PG-P7-T1	
IC2301	8-759-424-79	IC S-8423YFS-T2	
IC2302	8-759-482-98	IC S579162PZ-TEB (PC10E)	
IC2302	8-759-491-13	IC S579165PZ-TEB (PC10)	
IC2304	8-759-445-93	IC AK6440HM-E2	
IC2305	8-759-059-05	IC TL1596CPW-ELM1000	
IC3500	8-759-465-99	IC HD6433837TB55X	
IC3501	8-759-431-57	IC F643845GGF	
IC3502	8-759-432-00	IC TSB11LV01PT-TEB	
IC4700	8-759-512-62	IC CXA1497AN-E2	
IC4701	8-759-326-98	IC AK4503-VF-E2	
IC4703	8-759-427-87	IC MC74HC4052DTR2	
IC4704	8-759-252-90	IC TLV2362IPW-ELM1500	
IC4705	8-759-427-87	IC MC74HC4052DTR2	
IC4706	8-759-359-49	IC NJM3414AV(TE2)	
IC4707	8-759-326-98	IC AK4503-VF-E2	
IC4709	8-759-111-56	IC uPC4572G2-E2	
IC4710	1-801-473-11	IC TGA-D2707HF	
IC4711	1-801-486-11	IC TGA-MSM6602A-3BV	
IC4712	8-759-710-79	IC NJM2107F-TE2	
IC4714	8-759-359-49	IC NJM3414AV(TE2)	
IC4715	8-759-082-60	IC TC7S66FU	
IC4716	8-759-082-60	IC TC7S66FU	
IC4717	8-759-252-90	IC TLV2362IPW-ELM1500	
IC4718	8-759-252-90	IC TLV2362IPW-ELM1500	
IC8401	8-759-474-38	IC LA9510W-B-TBM	
IC8403	8-759-058-60	IC TC7SU04FU(TE85R)	
		< COIL >	
L203	1-414-754-11	INDUCTOR 10uH	
L207	1-412-940-21	INDUCTOR 1.2uH	
L209	1-414-754-11	INDUCTOR 10uH	
L218	1-414-754-11	INDUCTOR 10uH	
L401	1-414-754-11	INDUCTOR 10uH	
L402	1-414-754-11	INDUCTOR 10uH	
L403	1-414-754-11	INDUCTOR 10uH	
L1000	1-414-754-11	INDUCTOR 10uH	
L1100	1-414-755-11	INDUCTOR 22uH	
L1101	1-414-754-11	INDUCTOR 10uH	
L1102	1-414-754-11	INDUCTOR 10uH	
L1103	1-414-754-11	INDUCTOR 10uH	
L1104	1-414-751-11	INDUCTOR 1uH	
L1500	1-414-754-11	INDUCTOR 10uH	
L1501	1-414-754-11	INDUCTOR 10uH	
L1900	1-414-755-11	INDUCTOR 22uH	
L1901	1-414-914-11	INDUCTOR 0.82uH	
L1902	1-412-948-11	INDUCTOR 5.6uH	
L2100	1-414-751-11	INDUCTOR 1uH	
L2301	1-412-959-11	INDUCTOR 47uH	
L3504	1-414-754-11	INDUCTOR 10uH	
L3505	1-412-963-11	INDUCTOR 100uH	
L3506	1-414-753-91	INDUCTOR 4.7uH	
L4700	1-414-754-11	INDUCTOR 10uH	
L4701	1-414-754-11	INDUCTOR 10uH	
L4702	1-414-754-11	INDUCTOR 10uH	

Ref. No.	Part No.	Description	Remarks
L4703	1-414-754-11	INDUCTOR 10uH	
L4705	1-414-248-11	INDUCTOR 2.2uH	
L4706	1-414-756-11	INDUCTOR 47uH	
L8402	1-412-948-11	INDUCTOR 5.6uH	
L8403	1-412-957-11	INDUCTOR 33uH	
L8404	1-412-957-11	INDUCTOR 33uH	
		< TRANSISTOR >	
Q203	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q204	8-729-037-61	TRANSISTOR UN9113J-(TX).SO	
Q205	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q207	8-729-037-61	TRANSISTOR UN9113J-(TX).SO	
Q209	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q401	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q402	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q403	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q1000	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q1001	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q1002	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q1007	8-729-023-85	TRANSISTOR 2SJ168	
Q1008	8-729-023-85	TRANSISTOR 2SJ168	
Q1009	8-729-427-16	TRANSISTOR XP4113-TXE	
Q1010	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q1100	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q1101	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q1102	8-729-141-48	TRANSISTOR 2SB624-T1BV4	
Q1103	8-729-427-42	TRANSISTOR XP4211-TXE	
Q1104	8-729-427-80	TRANSISTOR XP6401	
Q1105	8-729-141-48	TRANSISTOR 2SB624-T1BV4	
Q1107	8-729-037-61	TRANSISTOR UN9113J-(TX).SO	
Q1108	8-729-037-72	TRANSISTOR UN9211J-(TX).SO	
Q1109	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q1110	8-729-037-61	TRANSISTOR UN9113J-(TX).SO	
Q1111	8-729-037-73	TRANSISTOR UN9212J-(TX).SO	
Q2301	8-729-037-61	TRANSISTOR UN9113J-(TX).SO	
Q2302	8-729-427-70	TRANSISTOR XP4401	
Q2303	8-729-141-48	TRANSISTOR 2SB624-T1BV4	
Q2305	8-729-028-27	TRANSISTOR 2SK2009(TE85L)	
Q2306	8-729-032-62	TRANSISTOR 2SJ347-TE85L	
Q2307	8-729-024-48	TRANSISTOR 2SK1830-TE85L	
Q2308	8-729-427-46	TRANSISTOR XP4213	
Q2309	8-729-037-63	TRANSISTOR UN9115J-(TX).SO	
Q2310	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q4701	8-729-429-50	TRANSISTOR XP4312	
Q4702	8-729-037-61	TRANSISTOR UN9113J-(TX).SO	
Q4703	8-729-037-63	TRANSISTOR UN9115J-(TX).SO	
Q4704	8-729-427-72	TRANSISTOR XP4501	
Q4711	8-729-023-85	TRANSISTOR 2SJ168(TE85L)	
Q4712	8-729-023-85	TRANSISTOR 2SJ168(TE85L)	
Q4713	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q4714	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q4715	8-729-427-46	TRANSISTOR XP4213	
Q4716	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q4717	8-729-427-72	TRANSISTOR XP4501	
Q4718	8-729-427-72	TRANSISTOR XP4501	
Q4719	8-729-429-50	TRANSISTOR XP4312	
Q4720	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q4721	8-729-427-72	TRANSISTOR XP4501	
Q4722	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	

Ref. No.	Part No.	Description	Remarks
Q4723	8-729-037-72	TRANSISTOR UN9211J-(TX).SO	
Q4726	8-729-015-47	TRANSISTOR 2SK1062(TE85L)	
Q4727	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q4728	8-729-429-50	TRANSISTOR XP4312	
Q4729	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q8401	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q8402	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q8403	8-729-037-74	TRANSISTOR UN9213J-(TX).SO	
Q8404	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
		< RESISTOR >	
R205	1-218-985-11	METAL GLAZE 470K 5% 1/16W	
R210	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R213	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R223	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R224	1-218-962-11	METAL GLAZE 5.6K 5% 1/16W	
R225	1-218-965-11	METAL GLAZE 10K 5% 1/16W	
R226	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R227	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R228	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R234	1-216-033-00	METAL CHIP 220 5% 1/10W	
R235	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R236	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R238	1-218-989-11	METAL GLAZE 1M 5% 1/16W	
R240	1-218-967-11	METAL GLAZE 15K 5% 1/16W	
R244	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R245	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R257	1-216-833-11	METAL CHIP 10K 5% 1/16W	
R283	1-218-941-11	METAL GLAZE 100 5% 1/16W	
R286	1-218-973-11	METAL GLAZE 47K 5% 1/16W	
R295	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R298	1-218-953-11	METAL GLAZE 1K 5% 1/16W	
R299	1-218-953-11	METAL GLAZE 1K 5% 1/16W	
R304	1-218-990-11	SHORT 0	
R305	1-218-990-11	SHORT 0	
R308	1-218-961-11	METAL GLAZE 4.7K 5% 1/16W	
R309	1-218-961-11	METAL GLAZE 4.7K 5% 1/16W	
R313	1-218-945-11	METAL GLAZE 220 5% 1/16W	
R314	1-218-941-11	METAL GLAZE 100 5% 1/16W	
R319	1-218-990-11	SHORT 0	
R321	1-218-990-11	SHORT 0	
R323	1-216-864-11	METAL CHIP 0 5% 1/16W	
R324	1-216-864-11	METAL CHIP 0 5% 1/16W	
R327	1-218-945-11	METAL GLAZE 220 5% 1/16W	
R328	1-218-961-11	METAL GLAZE 4.7K 5% 1/16W	
R329	1-218-973-11	METAL GLAZE 47K 5% 1/16W	
R330	1-218-973-11	METAL GLAZE 47K 5% 1/16W	
R331	1-218-990-11	SHORT 0	
R332	1-218-989-11	METAL GLAZE 1M 5% 1/16W	
R333	1-218-990-11	SHORT 0	
R401	1-216-797-11	METAL CHIP 10 5% 1/16W	
R402	1-218-945-11	METAL GLAZE 220 5% 1/16W	
R403	1-218-958-11	METAL GLAZE 2.7K 5% 1/16W	
R404	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R405	1-218-965-11	METAL GLAZE 10K 5% 1/16W	
R406	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R407	1-218-969-11	METAL GLAZE 22K 5% 1/16W	
R408	1-218-947-11	METAL GLAZE 330 5% 1/16W	
R409	1-218-969-11	METAL GLAZE 22K 5% 1/16W	
R410	1-218-977-11	METAL GLAZE 100K 5% 1/16W	
R411	1-218-968-11	METAL GLAZE 18K 5% 1/16W	

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Ref. No.	Part No.	Description			Remarks
R412	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R413	1-218-968-11	METAL GLAZE	18K	5%	1/16W
R414	1-218-980-11	METAL GLAZE	180K	5%	1/16W
R415	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R416	1-218-962-11	METAL GLAZE	5.6K	5%	1/16W
R417	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R418	1-218-968-11	METAL GLAZE	18K	5%	1/16W
R419	1-218-980-11	METAL GLAZE	180K	5%	1/16W
R420	1-218-983-11	METAL GLAZE	330K	5%	1/16W
R421	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R422	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R423	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R424	1-218-963-11	METAL GLAZE	6.8K	5%	1/16W
R425	1-218-963-11	METAL GLAZE	6.8K	5%	1/16W
R426	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R427	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R428	1-218-983-11	METAL GLAZE	330K	5%	1/16W
R429	1-218-983-11	METAL GLAZE	330K	5%	1/16W
R431	1-218-967-11	METAL GLAZE	15K	5%	1/16W
R432	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R433	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R434	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R435	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R436	1-218-963-11	METAL GLAZE	6.8K	5%	1/16W
R437	1-218-963-11	METAL GLAZE	6.8K	5%	1/16W
R438	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R439	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R440	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R1000	1-218-967-11	METAL GLAZE	15K	5%	1/16W
R1001	1-218-967-11	METAL GLAZE	15K	5%	1/16W
R1002	1-218-967-11	METAL GLAZE	15K	5%	1/16W
R1003	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1004	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1005	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1006	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R1007	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R1008	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R1029	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R1030	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R1031	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R1032	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R1033	1-218-990-11	SHORT	0		
R1034	1-218-990-11	SHORT	0		
R1035	1-218-990-11	SHORT	0		
R1036	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1100	1-218-948-11	METAL GLAZE	390	5%	1/16W
R1101	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R1102	1-218-990-11	SHORT	0		
R1103	1-218-990-11	SHORT	0		
R1104	1-218-947-11	METAL GLAZE	330	5%	1/16W
R1105	1-218-990-11	SHORT	0		
R1106	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R1107	1-218-990-11	SHORT	0		
R1108	1-218-990-11	SHORT	0		
R1109	1-218-990-11	SHORT	0		
R1110	1-218-990-11	SHORT	0		
R1111	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R1112	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1113	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R1115	1-218-990-11	SHORT	0		

Ref. No.	Part No.	Description			Remarks
R1116	1-218-990-11	SHORT	0		
R1117	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1118	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1119	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1122	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R1123	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1125	1-218-990-11	SHORT	0		
R1126	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R1127	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1128	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1129	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1130	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R1132	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R1133	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R1134	1-218-954-11	METAL GLAZE	1.2K	5%	1/16W
R1135	1-218-963-11	METAL GLAZE	6.8K	5%	1/16W
R1136	1-216-791-11	METAL CHIP	3.3	5%	1/16W
R1137	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R1138	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1139	1-218-939-11	METAL GLAZE	68	5%	1/16W
R1140	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1141	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1142	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1143	1-218-939-11	METAL GLAZE	68	5%	1/16W
R1144	1-218-935-11	METAL GLAZE	33	5%	1/16W
R1145	1-218-964-11	METAL GLAZE	8.2K	5%	1/16W
R1149	1-218-936-11	METAL GLAZE	39	5%	1/16W
R1150	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1152	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1153	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1154	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R1155	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R1157	1-218-990-11	SHORT	0		
R1158	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R1159	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R1160	1-218-960-11	METAL GLAZE	3.9K	5%	1/16W
R1161	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R1162	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R1163	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R1502	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1900	1-218-937-11	METAL GLAZE	47	5%	1/16W
R1901	1-218-937-11	METAL GLAZE	47	5%	1/16W
R1903	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R1904	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R1905	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R1906	1-218-937-11	METAL GLAZE	47	5%	1/16W
R1907	1-218-949-11	METAL GLAZE	470	5%	1/16W
R1908	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R1909	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R1911	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R1912	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R1914	1-218-990-11	SHORT	0		
R1916	1-218-990-11	SHORT	0		
R1917	1-218-949-11	METAL GLAZE	470	5%	1/16W
R1918	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R1919	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R1920	1-218-947-11	METAL GLAZE	330	5%	1/16W
R1921	1-218-937-11	METAL GLAZE	47	5%	1/16W
R1922	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R1924	1-218-953-11	METAL GLAZE	1K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R1925	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R1926	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R1927	1-218-941-11	METAL GLAZE	100	5%	1/16W
R1928	1-218-941-11	METAL GLAZE	100	5%	1/16W
R2119	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2120	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2121	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2122	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2123	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2124	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2125	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2126	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2127	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2128	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2129	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2130	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2131	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2132	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2133	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R2172	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2180	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2184	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2185	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R2304	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2305	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R2306	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R2307	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2308	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R2309	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2311	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2312	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2313	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2314	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2315	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2316	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2317	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2318	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2319	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2320	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2321	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2322	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2324	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2325	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2326	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2327	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2328	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2329	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2330	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2331	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2332	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2333	1-218-990-11	SHORT	0		
R2334	1-218-949-11	METAL GLAZE	470	5%	1/16W
R2335	1-218-990-11	SHORT	0		
R2337	1-218-985-11	METAL GLAZE	470K	0.50%	1/16W
R2338	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2339	1-218-962-11	METAL GLAZE	5.6K	5%	1/16W
R2340	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2341	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R2342	1-208-943-11	METAL GLAZE	220K	0.50%	1/16W
R2343	1-218-958-11	METAL GLAZE	2.7K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R2345	1-219-570-11	METAL GLAZE	10M	5%	1/16W
R2346	1-218-941-11	METAL GLAZE	100	5%	1/16W
R2347	1-218-941-11	METAL GLAZE	100	5%	1/16W
R2348	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2349	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2350	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2351	1-218-955-11	METAL GLAZE	1.5K	5%	1/16W
R2352	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R2353	1-216-791-11	METAL CHIP	3.3	5%	1/16W
R2354	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2355	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2356	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2357	1-218-945-11	METAL GLAZE	220	5%	1/16W
R2358	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2359	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2360	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2361	1-218-990-11	SHORT	0		
R2362	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R2363	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2364	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2365	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2366	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2367	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2368	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2369	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2370	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2371	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R2372	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R2373	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2374	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2375	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R2376	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2377	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2378	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R2379	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2380	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R2381	1-218-936-11	METAL GLAZE	39	5%	1/16W
R2383	1-218-958-11	METAL GLAZE	2.7K	5%	1/16W
R2384	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2387	1-218-952-11	METAL GLAZE	820	5%	1/16W
R2388	1-218-972-11	METAL GLAZE	39K	5%	1/16W
R2389	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2390	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2391	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2392	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2393	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2394	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2395	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2396	1-218-972-11	METAL GLAZE	39K	5%	1/16W
R2397	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2398	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R2399	1-218-990-11	SHORT	0		
R2401	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2402	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R2403	1-218-960-11	METAL GLAZE	3.9K	5%	1/16W
R2404	1-218-964-11	METAL GLAZE	8.2K	5%	1/16W
R2405	1-218-970-11	METAL GLAZE	27K	5%	1/16W
R2406	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R3500	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R3501	1-218-977-11	METAL GLAZE	100K	5%	1/16W

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Ref. No.	Part No.	Description			Remarks
R3528	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3529	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3530	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R3531	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R3532	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R3533	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R3534	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3535	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3538	1-208-709-11	METAL GLAZE	12K	0.50%	1/16W
R3539	1-208-709-11	METAL GLAZE	12K	0.50%	1/16W
R3540	1-218-990-11	SHORT	0		
R3541	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R3542	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R3543	1-218-938-11	METAL GLAZE	56	0.50%	1/16W
R3544	1-218-938-11	METAL GLAZE	56	0.50%	1/16W
R3545	1-218-938-11	METAL GLAZE	56	0.50%	1/16W
R3546	1-218-938-11	METAL GLAZE	56	0.50%	1/16W
R3556	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3557	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R3560	1-218-990-11	SHORT	0		
R3561	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R3562	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4700	1-220-398-11	METAL GLAZE	1.5M	5%	1/16W
R4701	1-218-987-11	METAL GLAZE	680K	5%	1/16W
R4702	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4704	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R4705	1-218-933-11	METAL GLAZE	22	5%	1/16W
R4706	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4707	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4708	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4709	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4711	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4712	1-218-984-11	METAL GLAZE	390K	5%	1/16W
R4724	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4730	1-218-929-11	METAL GLAZE	10	5%	1/16W
R4738	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4739	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4740	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4741	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4742	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4743	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4744	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4745	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4746	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4747	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4748	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4749	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4750	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4751	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4760	1-218-945-11	METAL GLAZE	220	5%	1/16W
R4761	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4762	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4763	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4764	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4765	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4766	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4767	1-218-945-11	METAL GLAZE	220	5%	1/16W
R4777	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R4790	1-218-929-11	METAL GLAZE	10	5%	1/16W
R4798	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R4799	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4800	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4801	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4802	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4803	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R4804	1-218-964-11	METAL GLAZE	8.2K	5%	1/16W
R4805	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R4806	1-218-964-11	METAL GLAZE	8.2K	5%	1/16W
R4808	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4809	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R4810	1-218-947-11	METAL GLAZE	330	5%	1/16W
R4811	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4812	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4813	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4814	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4815	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4816	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4817	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4818	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4819	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4820	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4821	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4822	1-218-945-11	METAL GLAZE	220	5%	1/16W
R4823	1-218-945-11	METAL GLAZE	220	5%	1/16W
R4824	1-218-935-11	METAL GLAZE	33	5%	1/16W
R4825	1-218-935-11	METAL GLAZE	33	5%	1/16W
R4826	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4827	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4828	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4829	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4830	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4831	1-218-935-11	METAL GLAZE	33	5%	1/16W
R4832	1-218-935-11	METAL GLAZE	33	5%	1/16W
R4833	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R4834	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4835	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R4836	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R4837	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R4838	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4839	1-218-981-11	METAL GLAZE	220K	5%	1/16W
R4840	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4841	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4843	1-218-955-11	METAL GLAZE	1.5K	5%	1/16W
R4844	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4845	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R4846	1-218-979-11	METAL GLAZE	150K	5%	1/16W
R4847	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4848	1-218-956-11	METAL GLAZE	1.8K	5%	1/16W
R4852	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4853	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4854	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4855	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4856	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4857	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R4858	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4859	1-218-984-11	METAL GLAZE	390K	5%	1/16W
R4860	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R4861	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4862	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R4863	1-218-977-11	METAL GLAZE	100K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R4864	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4865	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4867	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4868	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4869	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4870	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4871	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4872	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4873	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4874	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4875	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4876	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4877	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4878	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4879	1-218-937-11	METAL GLAZE	47	5%	1/16W
R4880	1-218-937-11	METAL GLAZE	47	5%	1/16W
R4887	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4890	1-218-940-11	METAL GLAZE	82	5%	1/16W
R4891	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R4892	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R4893	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R4894	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R4895	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R4896	1-208-707-11	METAL GLAZE	10K	0.50%	1/16W
R4897	1-208-713-11	METAL GLAZE	18K	0.50%	1/16W
R4898	1-208-713-11	METAL GLAZE	18K	0.50%	1/16W
R4899	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4900	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4901	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4902	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4903	1-218-949-11	METAL GLAZE	470	5%	1/16W
R4904	1-218-949-11	METAL GLAZE	470	5%	1/16W
R4905	1-218-949-11	METAL GLAZE	470	5%	1/16W
R4906	1-218-949-11	METAL GLAZE	470	5%	1/16W
R4907	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4908	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4910	1-218-990-11	SHORT	0		
R6200	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R8401	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R8402	1-218-990-11	SHORT	0		
R8403	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R8405	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R8406	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R8407	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R8408	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R8409	1-208-715-11	METAL GLAZE	22K	0.50%	1/16W
R8410	1-218-947-11	METAL GLAZE	330	5%	1/16W
R8411	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R8412	1-218-990-11	SHORT	0	(PC10E)	
R8413	1-218-949-11	METAL GLAZE	470	5%	1/16W
R8415	1-218-950-11	METAL GLAZE	560	5%	1/16W
R8416	1-218-963-11	METAL GLAZE	6.8K	5%	1/16W
R8417	1-218-949-11	METAL GLAZE	470	5%	1/16W
R8418	1-218-947-11	METAL GLAZE	330	5%	1/16W
R8421	1-218-990-11	SHORT	0		
R8423	1-218-979-11	METAL GLAZE	150K	5%	1/16W
R8424	1-218-979-11	METAL GLAZE	150K	5%	1/16W
R8429	1-218-966-11	METAL GLAZE	12K	5%	1/16W
R8430	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R8431	1-218-961-11	METAL GLAZE	4.7K	5%	1/16W
R8432	1-218-964-11	METAL GLAZE	8.2K	5%	1/16W
R8435	1-218-955-11	METAL GLAZE	1.5K	5%	1/16W
R8438	1-218-990-11	SHORT	0		
R8441	1-218-989-11	METAL GLAZE	1M	5%	1/16W
R8442	1-218-945-11	METAL GLAZE	220	5%	1/16W
R8443	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R8445	1-218-990-11	SHORT	0		
R8447	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R8448	1-218-973-11	METAL GLAZE	47K	5%	1/16W

< SWITCH >

Ref. No.	Part No.	Description
S2300	1-762-805-21	SWITCH, PUSH (1 KEY)(PANEL OPEN/CLOSE)

< VIBRATOR >

Ref. No.	Part No.	Description
X200	1-767-203-21	VIBRATOR, CRYSTAL 36MHz
X201	1-767-450-11	VIBRATOR, CERAMIC 20MHz
X1900	1-767-204-21	VIBRATOR, CRYSTAL 27MHz
X2100	1-767-450-11	VIBRATOR, CERAMIC 20MHz
X2300	1-767-450-11	VIBRATOR, CERAMIC 20MHz
X2301	1-760-458-21	VIBRATOR, CRYSTAL 32.798MHz
X3500	1-760-497-21	VIBRATOR, LITHIUM NIOBATE 6MHz
X4700	1-767-398-11	VIBRATOR, CRYSTAL 24.57079MHz
X8400	1-579-466-11	VIBRATOR, CRYSTAL 3.579545MHz (PC10)
X8400	1-579-661-21	OSCILLATOR, CRYSTAL 4.43619MHz(PC10E)

A-7073-344-A VF-117 BOARD, COMPLETE (PC10)
****

A-7073-398-A VF-117P BOARD, COMPLETE (PC10E)
****

(Ref.No.: 30,000 series)

< CAPACITOR >

Ref. No.	Part No.	Description			Remarks
C4400	1-113-986-11	TANTAL. CHIP	2.2uF	20%	25V
C4401	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C4402	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4403	1-104-851-11	TANTAL. CHIP	10uF	20%	10V
C4404	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	16V
C4405	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C4406	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C4407	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4408	1-164-878-11	CERAMIC CHIP	150PF	5%	16V
C4409	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C4410	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C4411	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C4412	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4413	1-135-333-11	TANTAL. CHIP	1uF	20%	16V
C4500	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C4501	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C4502	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C4503	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4504	1-104-912-11	TANTAL. CHIP	3.3uF	20%	16V
C4505	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4506	1-104-912-11	TANTAL. CHIP	3.3uF	20%	16V
C4507	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4508	1-135-210-11	TANTALUM CHIP	4.7uF	20%	10V
C4509	1-104-912-11	TANTAL. CHIP	3.3uF	20%	16V
C4510	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4511	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C4512	1-135-149-21	TANTALUM CHIP	2.2uF	20%	10V
C4513	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V

Ref. No.	Part No.	Description			Remarks
C4514	1-135-181-21	TANTALUM CHIP	4.7uF	20%	6.3V
C4515	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C4516	1-164-937-11	CERAMIC CHIP	0.001uF	10%	16V
C4517	1-164-874-11	CERAMIC CHIP	100PF	5%	16V
C4519	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C4523	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4524	1-135-179-21	TANTAL. CHIP	2.2uF	20%	16V
C4525	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4527	1-113-986-11	TANTAL. CHIP	2.2uF	20%	25V
C4528	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4531	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4533	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4535	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4536	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4600	1-113-990-11	TANTAL. CHIP	15uF	20%	16V
C4601	1-164-943-11	CERAMIC CHIP	0.01uF	10%	16V
C4602	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C4603	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C4604	1-163-020-00	CERAMIC CHIP	0.0082uF	10%	50V
C4605	1-115-363-11	CERAMIC CHIP	10uF		10V
		< CONNECTOR >			
CN4400	1-778-595-21	CONNECTOR, BOARD TO BOARD 20P			
CN4500	1-573-925-11	CONNECTOR, FFC/FPC (ZIF) 16P			
		< DIODE >			
D4400	8-719-043-70	DIODE MA6S121-(TX)			
D4500	8-713-102-80	DIODE 1T369-01-T8A			
D4501	8-719-056-23	DIODE MA2S111-(K8).SO			
D4600	8-719-802-36	DIODE 1SS250-TE85L			
D4601	8-719-058-86	DIODE PG1101H-TR			
		< IC >			
IC4400	8-759-097-75	IC MB3789PFV-G-BND-ER			
IC4500	8-759-198-34	IC TA75S558F(TE85R)			
IC4501	8-759-427-85	IC MB88146APFV-G-BND-ER			
IC4502	8-752-080-54	IC CXA1515AQ-T4			
IC4504	8-752-377-97	IC CXD2411AR-T4			
		< COIL >			
L4402	1-414-402-11	INDUCTOR 47uH			
L4403	1-414-756-11	INDUCTOR 47uH			
L4500	1-414-754-11	INDUCTOR 10uH			
L4503	1-412-949-21	INDUCTOR 6.8uH			
L4506	1-414-754-11	INDUCTOR 10uH			
L4600	1-414-398-11	INDUCTOR 10uH			
		< TRANSISTOR >			
Q4400	8-729-427-72	TRANSISTOR XP4501-TXE			
Q4401	8-729-013-72	TRANSISTOR RN2105-TE85L			
Q4402	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO			
Q4501	8-729-037-75	TRANSISTOR UN9214J-(TX).SO			
Q4502	8-729-037-75	TRANSISTOR UN9214J-(TX).SO			
Q4503	8-729-037-75	TRANSISTOR UN9214J-(TX).SO			
Q4504	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO			
Q4505	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO			
Q4506	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO			
Q4507	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO			
Q4508	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO			
Q4600	8-729-039-24	TRANSISTOR FX216-TL1			

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R4400	1-218-949-11	METAL GLAZE	470	5%	1/16W
R4401	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4402	1-208-943-11	METAL GLAZE	220K	0.50%	1/16W
R4403	1-208-931-11	METAL GLAZE	68K	0.50%	1/16W
R4404	1-218-975-11	METAL GLAZE	68K	5%	1/16W
R4405	1-218-970-11	METAL GLAZE	27K	5%	1/16W
R4406	1-218-979-11	METAL GLAZE	150K	5%	1/16W
R4407	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4408	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4410	1-218-982-11	METAL GLAZE	270K	5%	1/16W
R4412	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R4414	1-218-982-11	METAL GLAZE	270K	5%	1/16W
R4415	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4416	1-218-983-11	METAL GLAZE	330K	5%	1/16W
R4417	1-218-978-11	METAL GLAZE	120K	5%	1/16W
R4418	1-218-954-11	METAL GLAZE	1.2K	5%	1/16W
R4419	1-218-942-11	METAL GLAZE	120	5%	1/16W
R4420	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4421	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4422	1-218-985-11	METAL GLAZE	470K	5%	1/16W
R4423	1-218-929-11	METAL GLAZE	10	5%	1/16W
R4424	1-217-671-11	METAL CHIP	1	5%	1/10W
R4425	1-217-671-11	METAL CHIP	1	5%	1/10W
R4426	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4500	1-218-984-11	METAL GLAZE	390K	5%	1/16W
R4503	1-218-984-11	METAL GLAZE	390K	5%	1/16W
R4504	1-218-984-11	METAL GLAZE	390K	5%	1/16W
R4505	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4506	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R4507	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R4508	1-218-972-11	METAL GLAZE	39K	5%	1/16W
R4509	1-218-970-11	METAL GLAZE	27K	5%	1/16W
R4510	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R4511	1-218-965-11	METAL GLAZE	10K	5%	1/16W
R4512	1-218-990-11	SHORT	0		
R4513	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4515	1-218-990-11	SHORT	0		
R4517	1-218-982-11	METAL GLAZE	270K	0.50%	1/16W
R4518	1-208-711-11	METAL GLAZE	15K	0.50%	1/16W
R4519	1-218-982-11	METAL GLAZE	270K	5%	1/16W
R4520	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4522	1-218-973-11	METAL GLAZE	47K	5%	1/16W
R4523	1-208-939-11	METAL GLAZE	150K	0.50%	1/16W
R4524	1-208-941-11	METAL GLAZE	180K	0.50%	1/16W
R4525	1-218-974-11	METAL GLAZE	56K	5%	1/16W
R4536	1-218-953-11	METAL GLAZE	1K	5%	1/16W
R4541	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R4542	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R4543	1-218-959-11	METAL GLAZE	3.3K	5%	1/16W
R4544	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R4545	1-218-957-11	METAL GLAZE	2.2K	5%	1/16W
R4546	1-218-971-11	METAL GLAZE	33K	5%	1/16W
R4547	1-218-970-11	METAL GLAZE	27K	5%	1/16W
R4548	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4549	1-218-969-11	METAL GLAZE	22K	5%	1/16W
R4550	1-218-976-11	METAL GLAZE	82K	5%	1/16W
R4551	1-218-977-11	METAL GLAZE	100K	5%	1/16W
R4552	1-218-972-11	METAL GLAZE	39K	5%	1/16W

Ref. No.	Part No.	Description	Remarks
R4553	1-218-953-11	METAL GLAZE 1K 5%	1/16W
R4554	1-218-990-11	SHORT 0	
R4600	1-218-971-11	METAL GLAZE 33K 5%	1/16W
R4601	1-218-941-11	METAL GLAZE 100 5%	1/16W
		< TRANSFORMER >	
⚠T4600	1-429-804-21	TRANSFORMER, INVERTER	

MISCELLANEOUS
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Ref. No.	Part No.	Description	Remarks
21	1-475-331-21	SWITCH BLOCK, CONTROL(FK-4850)	
57	1-666-884-11	FP-605 FLEXIBLE BOARD	
102	1-452-777-21	MAGNET	
112	1-957-909-11	HARNESS (VQ-51)	
113	1-957-908-11	HARNESS (VP-71)	
115	1-662-741-11	FP-484 FLEXIBLE BOARD	
125	1-475-374-21	SWITCH BLOCK, CONTROL(ME-4850)	
164	1-547-923-21	FILTER BLOCK, OPTICAL	
168	8-848-721-01	DEVICE, LENS LSV-590A(J-N)	
715	1-770-363-11	ELASTIC CONNECTOR	
* BT1	1-528-724-31	BATTERY, V/L RICHARGEABL	
BT3700	1-694-154-21	TERMINAL BOARD, BATTERY	
IC101	A-7030-755-A	CCD BLOCK ASSY(080)SERVICE	(CCD IMAGER)(PC10)
IC101	A-7030-765-A	CCD BLOCK ASSY(081)SERVICE	(CCD IMAGER)(PC10E)
LCD901	8-753-022-98	DCX501AKC-J	
LCD902	8-753-016-10	LCX005BK-1	
M901	A-7044-007-A	DRUM ASSY (DEH-07A-R)	
M902	8-835-524-01	MOTOR, DC SCD-0101A (CAPSTAN)	
M903	A-7010-673-A	ASSY, LM MOTOR (LOADING)	
M904	1-763-008-11	MOTOR ASSY, FOCUS	
M905	1-763-009-11	MOTOR ASSY, ZOOM	
MIC1	1-542-332-11	MICROPHONE UNIT	
⚠ND4600	1-517-414-41	FLUORESCENT TUBE (0.55 INCH)(BACKLIGHT)	
⚠ND5500	1-517-586-21	TUBE,FLUORESCENT,COLD CATHODE	(BACKLIGHT)
SE500	1-801-731-71	SENSOR, ANGULAR VELOCITY (YAW)	
SE501	1-801-731-81	SENSOR, ANGULAR VELOCITY (PITCH)	
SP901	1-505-417-11	SPEAKER (2.8 CM)	

Be sure to read "Note on the CCD Imager replacement" on page 4-8 when changing the CCD imager.

ACCESSORIES & PACKING MATERIALS
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Ref. No.	Part No.	Description	Remarks
	A-7009-689-A	AC POWER ADAPTOR (AC-V100)	(PC10: US, Canadian)
	A-7009-690-A	AC POWER ADAPTOR (AC-V100)	(PC10: E, HK, JE/PC10E)
	1-475-141-21	COMMANDER, REMOTE (RMT-808E)	(PC10/PC10E: EXCEPT AEP, UK)
	1-475-141-31	COMMANDER, REMOTE (RMT-809E)	(PC10E: AEP, UK)
⚠	1-555-074-21	CORD, POWER (PC10E: AU)	
	1-569-008-11	ADAPTOR, CONVERSION 2P	(PC10: E, HK, JE/PC10E: E, HK, JE)
	1-573-291-11	CONNECTOR, CONVERSION	(PC10E: AEP, UK)
	1-765-080-11	CORD, CONNECTION (FOR AV CONNECTION)	
⚠	1-769-608-11	CORD, POWER	(PC10: E, HK, JE/PC10E: AEP, UK, E, HK, JE)
	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P	(PC10: HK/PC10E: UK, HK)
⚠	1-775-549-21	CORD, POWER (PC10: US, Canadian)	
	1-776-841-21	CORD, CONNECTION (DK CABLE)	
⚠	1-782-476-11	CORD, POWER (PC10E: CN)	
	3-860-747-11	MANUAL,INSTRUCTION(ENGLISH,SPANISH)	(PC10)
	3-860-747-21	MANUAL,INSTRUCTION(FRENCH)	(PC10: Canadian)
	3-860-747-31	MANUAL,INSTRUCTION(CHINESE)	(PC10: E, HK)
	3-860-747-41	MANUAL,INSTRUCTION(KOREAN)(PC10: JE)	
	3-860-749-11	MANUAL,INSTRUCTION(ENGLISH, RUSSIAN)	(PC10E: AEP, UK)
	3-860-749-21	MANUAL,INSTRUCTION(GERMAN,ITALIAN)	(PC10E: AEP)
	3-860-749-31	MANUAL,INSTRUCTION(FRENCH, DUTCH)	(PC10E: AEP)
	3-860-749-41	MANUAL,INSTRUCTION	(SPANISH, PORTUGUESE)(PC10E: AEP)
	3-860-749-51	MANUAL,INSTRUCTION(ENGLISH,RUSSIAN)	(PC10E: E, CN, HK, AU, JE)
	3-860-749-61	MANUAL,INSTRUCTION(ARABIC, PERSIAN)	(PC10E: E, CN)
	3-860-749-71	MANUAL,INSTRUCTION(CHINESE)	(PC10E: E, HK, CN, JE)
	3-860-749-81	MANUAL,INSTRUCTION(FRENCH, GERMAN)	(PC10E: E, HK, CN, JE)
*	3-974-634-02	CUSHION, ACC	
*	3-974-635-01	CUSHION (LOWER)	
**	NP-F100	BATTERY PACK	

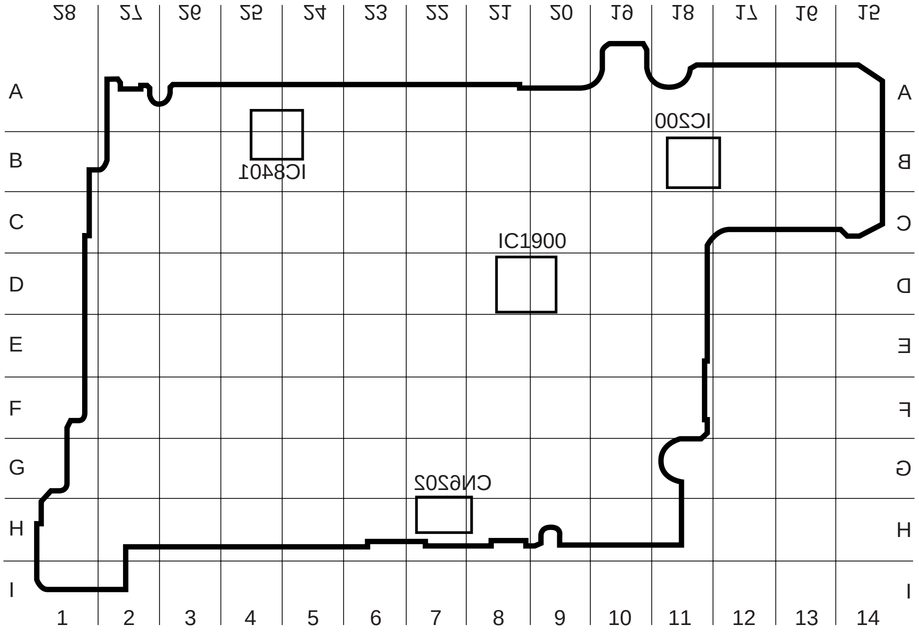
** MARK PARTS IS AVAILABLE AS AN OPTIONAL ACCESSORY.

Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	**Note :** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

〈PARTS REFERENCE SHEET〉

You can find the parts position of location of mount locations applying to VC-199 board of a set.

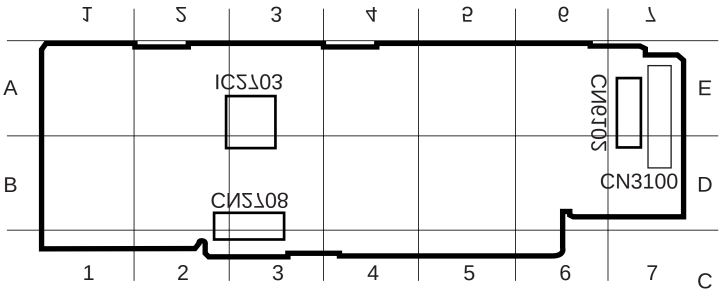
VC-199 DCR-PC10/PC10E **SIDE A**


28
27
26
25
24
23
22
21
20
19
18
17
16
15
A
B
C
D
E
F
G
H
I
IC8401
IC2200
IC1900
CN6202
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Take a copy of CAMERA COLOR REPRODUCTION FRAME and Parts referencesheets with a clear sheet for use.

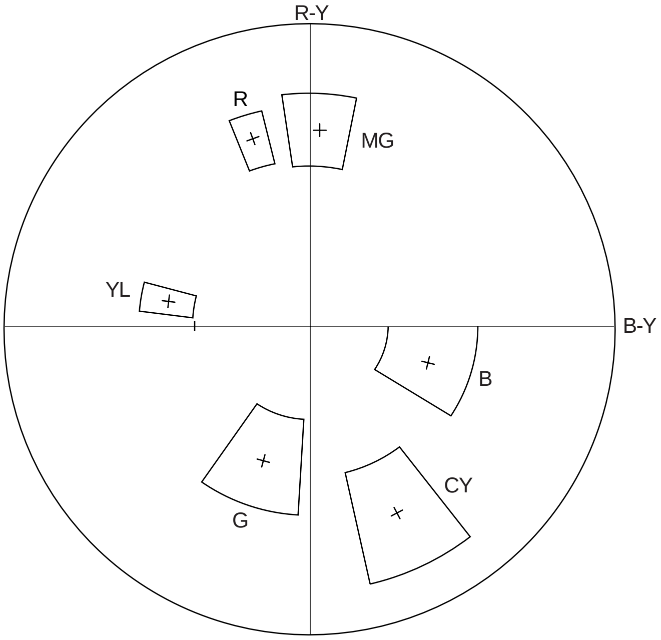
SIDE B DCR-PC10/PC10E VC-199

MR-39 DCR-PC10/PC10E **SIDE A**


1
2
3
4
5
6
7
A
B
C
D
E
IC2703
CN2708
CN6105
CN3100
1
2
3
4
5
6
7

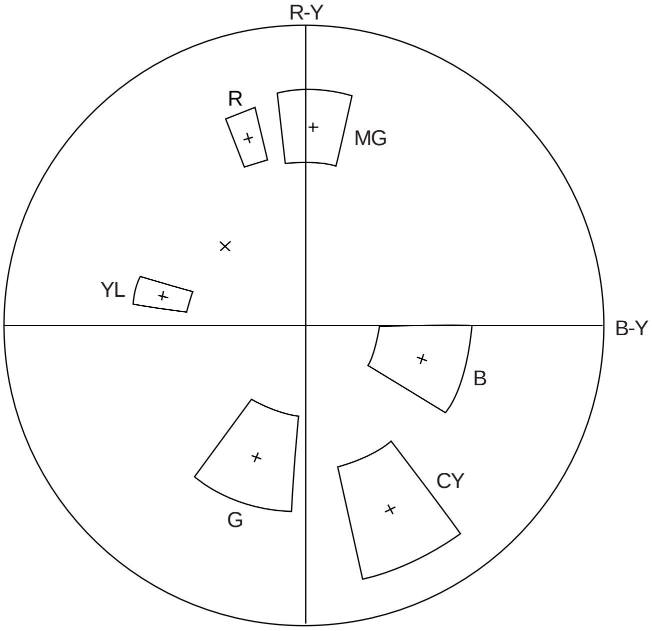
SIDE B DCR-PC10/PC10E MR-39

〈FOR CAMERA COLOR REPRODUCTION ADJUSTMENT〉


R-Y
R
MG
YL
B-Y
B
CY
G

DCR-PC10

Take a copy of CAMERA COLOR REPRODUCTION FRAME and Parts referencesheets with a clear sheet for use.


R-Y
R
MG
YL
B-Y
B
CY
G

DCR-PC10E

9-973-998-11

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